

**From:** [Puco ContactOPSB](#)  
**To:** [Puco Docketing](#)  
**Subject:** public comment - 16-1871-EL-BGN - Thomas Sullivan  
**Date:** Tuesday, January 21, 2020 12:18:19 PM  
**Attachments:** [OPSB Case Number. 16-1871-EL-BGN Icebreaker Wind Facility Strongly Opposed Citizens & Not Part of the Coal Industry.pdf](#)

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**From:** Tom Sullivan Jr. <tcsjr@rpmnc.com>  
**Sent:** Tuesday, January 21, 2020 11:32 AM  
**To:** Butler, Matthew <matthew.butler@puco.ohio.gov>  
**Subject:** FW: OPSB Case Number.: 16-1871-EL-BGN: Icebreaker Wind Facility - Strongly Opposed Citizens - Not Part of the Coal Industry

**From:** Tom Sullivan Jr. <[tcsjr@rpmnc.com](mailto:tcsjr@rpmnc.com)>  
**Sent:** Tuesday, January 21, 2020 11:19 AM  
**To:** [Dan.mccarthy@governor.ohio.gov](mailto:Dan.mccarthy@governor.ohio.gov); [samuel.randazzo@puco.ohio.gov](mailto:samuel.randazzo@puco.ohio.gov); [Dorothy.Pelanda@agri.ohio.gov](mailto:Dorothy.Pelanda@agri.ohio.gov); [workforce@owt.ohio.gov](mailto:workforce@owt.ohio.gov); [Laurie.stevenson@epa.ohio.gov](mailto:Laurie.stevenson@epa.ohio.gov); [DirectorAmyActon@odh.ohio.gov](mailto:DirectorAmyActon@odh.ohio.gov); [mary.mertz@DNR.state.oh.us](mailto:mary.mertz@DNR.state.oh.us); [Greg.Murphy@dot.state.oh.us](mailto:Greg.Murphy@dot.state.oh.us); [matt.butler@puco.ohio.gov](mailto:matt.butler@puco.ohio.gov)  
**Subject:** OPSB Case Number.: 16-1871-EL-BGN: Icebreaker Wind Facility - Strongly Opposed Citizens - Not Part of the Coal Industry

Dear Governor DeWine & Board Members of the OPSB:

Please find the attached important information, which represents tens of thousands of US and Canadian citizens, who are strongly opposed to OPSB Case Number.: 16-1871-EL-BGN: Icebreaker Wind Facility; Location: In Lake Erie (submerged 60 feet deep), 5-6 nautical miles off the coast of Cleveland, Ohio, Cuyahoga County, to be developed by Norwegian billionaire and his company, Fred. Olsen Renewables.

A hard-copy version of this important information has also been sent via Federal Express to your office and the offices of the voting Board Members of the Ohio Power Siting Board as listed below:

- **Sam Randazzo, Chairman | Public Utilities Commission of Ohio**  
180 East Broad Street, Columbus, OH 43215
- **Dorothy Pelanda, Director | Ohio Department of Agriculture**  
8995 East Main Street, Reynoldsburg, OH 43068
- **Lydia Mihalik, Director | Ohio Development Services Agency**  
77 South High Street, Columbus, OH 43215
- **Laurie Stevenson, Director | Ohio Environmental Protection Agency**  
50 West Town Street, Suite 700, Columbus, OH 43215
- **Amy Acton, M.D., MPH, Director | Ohio Department of Health**  
246 North High Street, PO Box 118, Columbus, OH 43215
- **Mary Mertz, Director | Ohio Department of Natural Resources**  
2045 Morse Road, Building D-3, Columbus, OH 43229
- **Gregory Murphy, PE**  
Senior Vice President, States & Municipalities Market Sector, TransSystems Corp.

C/O Matthew Butler, OPSB, 180 East Broad Street, Columbus, OH 43215

On behalf of the signatories here within, and “Ohio’s Gem,” Lake Erie, please **stop these things**.

**LONG LIVE ERIELHONEN!**

The Iroquoian Indian Name for Lake Erie

Sincerely yours,

Tom

Thomas C. Sullivan, Jr.  
29360 Lake Road  
Bay Village, OH 44140

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LETTER TO GOVERNOR DEWINE

AND CHAIR OF THE OPSB, SAM RANDAZZO, and Matthew Butler

C.c. Voting members of the Staff of OPSB

RE: Icebreaker, Case 16 1871 EL BGN

Governor Mike DeWine

Riffe Center, 30<sup>th</sup> Floor

77 South High Street,

Columbus, OH 43215-6117

[Dan.mccarthy@governor.ohio.gov](mailto:Dan.mccarthy@governor.ohio.gov)

Chairman of the Ohio Power Siting Board, Sam Randazzo

The Ohio Power Siting Board

180 East Broad Street

Columbus, Ohio 43215

[samuel.randazzo@puco.ohio.gov](mailto:samuel.randazzo@puco.ohio.gov)

C.c. [Matthew.butler@puco.ohio.gov](mailto:Matthew.butler@puco.ohio.gov)

(Please distribute to Voting Members of OPSB)

*C.c. Interested parties*

*DELIVERED HARD COPY AND ELECTRONICALLY*

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## Voting Board Members

Mr. Samuel Randazzo as above

[Ohio Department of Agriculture](#)

[Dorothy Pelanda, Director](#)

8995 East Main Street

Reynoldsburg, Ohio 43068

[Dorothy.Pelanda@agri.ohio.gov](mailto:Dorothy.Pelanda@agri.ohio.gov)

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Lydia Mihalik, Director

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**Ohio Environmental Protection Agency**

Laurie Stevenson, Director

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Columbus, Ohio 43215

[Laurie.stevenson@epa.ohio.gov](mailto:Laurie.stevenson@epa.ohio.gov)

[Laura.factor@epa.ohio.gov](mailto:Laura.factor@epa.ohio.gov)

**Ohio Department of Health**

Amy Acton, M.D., MPH, Director

246 North High Street

P.O. Box 118

Columbus, Ohio 43215

[DirectorAmyActon@odh.ohio.gov](mailto:DirectorAmyActon@odh.ohio.gov)

**Ohio Department of Natural Resources**

Mary Mertz, Director

2045 Morse Road, Bldg. D-3

Columbus, Ohio 43229

[Mary.mertz@dnr.state.oh.us](mailto:Mary.mertz@dnr.state.oh.us)

**Public Member**

Gregory Murphy, P.E.

[Greg.Murphy@dot.state.oh.us](mailto:Greg.Murphy@dot.state.oh.us)

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Date: January 8, 2020



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**Dear Governor DeWine, Chair of the Ohio Power Siting Board, Sam Randazzo,**

Please accept this letter to assist in your understanding of the volume of persons and groups who oppose industrialization of Lake Erie, or any of the Great Lakes. There is in short:

- No public need (OHIO is currently disengaging from power due to diminished demand), and wind turbines would never be in a position to supplant or augment any base load power source anyway. "GROWING ENERGY DEMAND DUE TO EXISTING PLANT RETIREMENTS" is a quote from LEEDCo defending the plan. to put turbines into Lake Erie. However according to the US Energy Information Agency there is an **excess capacity** in the region driving retirements: <https://www.eia.gov/todayinenergy/detail.php?id=7330> Most of the generators projected to retire are older, inefficient units primarily concentrated in the Mid-Atlantic, Ohio River Valley, and Southeastern U.S. where excess electricity generation capacity currently exists.
- **Public Trust issues** are abundant: this Lake is a source of potable water for about 11 million persons; the lakebed lease now purportedly in the control of a foreign multinational billionaire.
- Many reputable and environmental groups, birding, fishing, advocacy, have proposed an EIS, stricter scrutiny of this proposal, and suggest that there are serious deficiencies in the existing EA that will not protect wildlife. Please see the [final brief by Lawyer John Stock, who](#) clearly indicates that not only has the developer failed to assess how much mortality will occur, but also that the means to do so are currently unattainable. How would a project that suggests it will NOT be about SIX turbines, but well over 1400 or more, a "Saudi Arabia" of wind, begin to maintain integrity and accountability when the means to study mortality will be a supremely clear case of unfortunate cover ups, and impossibly profit driven book-keeping on life/death itself.
- Our signatories do not concur with mortality studies that are always in the favor of the developer, nor those that will assess the damage without independent review, after the killing has begun. This is one of the most abundant and rich biodiverse

areas in North America. Bird Friendly siting, this is NOT. We protest the entire system in place, in favor of developers, to have “threshold” numbers of mortality, birds and bats, facile and insincere counting methods, and the underlying idea that these creatures might be sacrificed to “save us from climate catastrophe.” If anything, Icebreaker will be one more “notch” in the belt of profit taking with impunity, where entire species are being exterminated.

- Bird study organizations both sides of the border have expressed concern about the impacts on bird life and recognize that these impacts can be cumulative. They further articulate conditions under which IWTs (Industrial Wind Turbines) should be banned. However, these concerns are facile and short lived in view of the extensive shorelines of the Lakes that need to be protected and preserved. IWTs will most certainly disrupt all areas, even areas of intensive agriculture or urbanization, areas of intensive wildlife, or pristine. There will be 1) barrier and displacement from preferred habitat, 2) physical habitat loss, and 3) a direct demographic element from physical collision.
- Water contamination is unfortunately something that anyone with a clear eye, can see. Each of the turbines slated for the Lake will contain 404 gallons of oil and lubricants. No one in the public has yet seen a containment system, a maintenance program, or a decommissioning plan.
- We agree with the formal Icebreaker opposition position expressed by the [American Bird Conservancy and the Black Swamp Bird Observatory of Oak Harbor, Ohio](#), in their comments to the OPSB and in their recent federal lawsuit filed in Washington, DC.
- The promise of permanent jobs and supply chains, is at the usual level of tooth fairy imagining. Europe has LOST net jobs due to wind and solar subsidies, making the cost of “doing business,” manufacturing, impossible in many cases. Ontario, Canada, has lost 800,000 manufacturing jobs in about 8 years, a result as most agree, of the [disastrous Green Energy Act](#), which forced the highly subsidized power to gain entry to the grid first, leaving ramping up and down of gas fired plants to carry that additional burden. Spain is another Poster Child for job losses:

*[Green job advocates](#) once touted Spain's aggressive alternative energy policy as a model for America. But, today, Spain's green-jobs bubble has burst.*

*Unemployment there stands at 18 percent, nearly twice that of the United States. Gabriel Calzada, economics professor at Madrid's King Juan Carlos University, estimates that each green job Spain creates prevents 2.2 other jobs from being created.*

Please do not permit the LEEDCo/Icebreaker six turbine proposal. It will prove to be just as disastrous as the [realities playing out in Europe, or Ontario](#), where eco systems are collapsing.

It is our intention to circle Lake Erie with the facts and create citizen lobby groups to protect these assets. This document contains signatures and objections from groups and individuals, representing tens of thousands. (Please note [Senator Jacobs' call for a moratorium.](#))

Icebreaker's Master Plan is to proliferate the Lakes. We cannot allow this richness of life and sustenance for living things, to be desecrated. We count on your leadership to prevent this and any future Great Lakes turbine proposals.

Thank you.

Sincerely

***Thomas C. Sullivan, Jr.***  
***29360 Lake Road***  
***Bay Village, OH 44140***  
[Nolakeeriewindfarm.org](http://Nolakeeriewindfarm.org)  
[tcsjr@rpm-inc.com](mailto:tcsjr@rpm-inc.com)

**Sherri Lange**  
 Co-Executive Director, Great Lakes Wind Truth  
 VP Canada, Save the Eagles International  
 Founding Director, Toronto Wind Action

CEO NA-PAW (North American Platform Against Wind Power, over 370 member groups)

[www.na-paw.org](http://www.na-paw.org)

[kodaisl@rogers.com](mailto:kodaisl@rogers.com)

**Suzanne Albright**

Founding Member Co-Executive

Great Lakes Wind Truth

Executive Member, Turbines On Fire

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**Dawn Davis**

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[drdavis45887@mail.com](mailto:drdavis45887@mail.com)

**Mark Duchamp** +34 693 643 736

President, Save the Eagles International

[www.savetheeaglesinternational.org](http://www.savetheeaglesinternational.org)

Chairman, World Council for Nature

[www.wcfn.org](http://www.wcfn.org)

[Save.the.eagles2@gmail.com](mailto:Save.the.eagles2@gmail.com)

**Al Isselhard**

Founding Member GLWT

Great Lakes Wind Truth, Co-Executive

Great Lakes Concerned Citizens

Coalition On Article X

Lake Ontario Riparian Alliance

(Wolcott, New York)

[Speedway2742@gmail.com](mailto:Speedway2742@gmail.com)

**Sharen Trembath**

Citizens Against Wind Turbines In Lake Erie

[trembath@bluefrog.com](mailto:trembath@bluefrog.com)

**Captain Tom Marks**

Tom Marks is a past president of the Southtowns Walleye Association of WNY, Inc., the largest Walleye club in North America. Marks is a past President of the Lake Erie Chapter of Fly Fishers Federation. Marks fills many other roles promoting and protecting the Great Lakes Fishery. He is the New York Director for the Great Lakes Sport Fishing Council, and a member on Buffalo's Niagara Sport Advisory Commission. He is a graduate of the Sea Grant Great Lakes Leadership Institute. Marks is the only non-scientist member of the Lake Erie Botulism Task Force, a member of the Buffalo River Walleye Restoration Program, and is a member of the NYS Conservation Council, to mention just a few associations.

7004 Waring Circle  
 Derby, New York 14047  
 NY Director \*Great Lakes Sport Fishing Council  
[TomMarks@Verizon.net](mailto:TomMarks@Verizon.net)

\*The Great Lakes Sport Fishing Council represents thousands of boaters and fishermen throughout the Great Lakes to various government organizations. We are a bi-national organization.

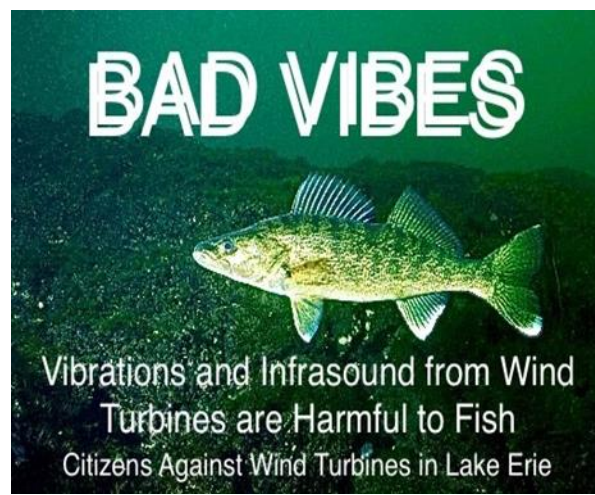
**Rick Unger**, Advisor, Past President  
 Lake Erie Charter Boat Association (LECBA)  
[rungerchpd@aol.com](mailto:rungerchpd@aol.com)

**Tom Wasilewski**  
 Great Lakes Wind Truth, Board Member  
 Coordinator of the Conneaut, Ohio Hawk Watch (an approved HMANA site)  
 Member of Presque Isle Audubon  
 Long-time hawk, eagle, and other bird watcher in Conneaut, Ohio  
[nolakeeriewindturbines@aol.com](mailto:nolakeeriewindturbines@aol.com)

**Charlie Wright**  
 Former Deputy Mayor, Leamington, Ontario, Canada  
 (Leamington, home to Point Pelee, site of tens if not hundreds of millions of migrating birds)  
 Leamington, Ontario  
[charliew@mdirect.net](mailto:charliew@mdirect.net)

“I have never heard of anything so entirely crazy as putting wind turbines in Lake Erie. You have heard me say I would lay across a road in front of trucks bringing them to the Western Basin of Lake Erie. I am saying now that a blatant environmental catastrophe is about to happen. Do not allow the LEEDCo project to proceed. “Incubator!” That means birthing more? You have to be kidding. Not One.”

**Charlie Wright, Deputy Mayor, Leamington, Ontario**



<https://www.windturbinesyndrome.com/2010/fish-and-wind-turbines-dont-mix/>

*Wind turbines produce low-frequency noise (LFN) and seismic vibrations—on this there is no longer any question or worthwhile debate.<sup>1</sup> We should all be alarmed by the implications for sea and aquatic life.*

*Fish, it is well known, have acute sensitivity to extremely low-frequency linear acceleration, or infrasound, even below 1 Hz.<sup>2</sup> This sensitivity is mediated through the fishes' otolith organs, the same organs that humans and other mammals use for detection of linear acceleration and gravity.*

*Studies of Atlantic cod, for instance, have shown that sensitivity to infrasound at 0.1 Hz (one compression wave every 10 seconds) is about 10,000 times greater than a human's sensitivity to linear acceleration.<sup>3</sup>*

*Infrasound sensitivity appears to be common to all fish, whereas sensitivity to higher frequencies, above 1 kHz, is a more specialized hearing function evolved only in certain fish, such as those with swim bladders coupled to their hearing organs.<sup>4</sup>*

## Addendum

### OTHER HAZARDS TO WIND TURBINES IN LAKE ERIE

- Boaters may be restricted, off limits areas: possible danger to boaters in high winds
- Anchoring, cement, disruption of the lakebed, will circulate buried toxic substances contaminating the water, drinking water for millions, and endanger aquatic life
- Disruption of noise, mechanical and infrasound (ILFN), physically damaging: there is no safe place for shoreline communities around Lake Erie due to the propagation of sound over water; reported and accepted health effects on land up to 32 km (France and AU)
- Shadow flicker disturbing to boaters
- Solvents used to clear the blades of bugs (which reduces efficiency up to 30%) will put toxins in the Lake
- Nighttime boaters would be at risk of collision
- Cable excavation poses even more hazards
- Turbines will affect radar communications
- Decommissioning will be invasive and expensive and likely not even done, leaving industrial eco junk in the Lake. Turbines usually require mechanical repairs within five years, and only last 10-15 years, not 20-25 as developers suggest
- Who will recover the highly toxic rare earth elements used in the magnets when the turbines are decommissioned?
- Where will the non-recyclable carbon fibre blades be hosted at the end of the life cycle? Who will pay the costs?
- Effects to marine and aquatic life from installation and electromagnetic fields
- **Completely unknown hazards/impacts to birds, bats, flying animals including butterflies and dragonflies**
- **THIS PROJECT IS COMPLETELY UNNEEDED, COSTLY BEYOND WORDS, AND A CERTAIN ENVIRONMENTAL PROBLEM**



## SIGNATORIES TO THE LETTER TO GOVERNOR DEWINE AND CHAIR OPSB, SAM RANDAZZO

“The Project remains as ill-conceived and disastrous for Lake Erie as it was on the date of its conception. The residents continue to fight to protect their interests and the interests of the citizens of the State. In glaring contrast, Icebreaker is spending millions of dollars for its own, private, economic self-interest. The Board must not abet Icebreaker’s proposed fouling of the irreplaceable natural asset that is Lake Erie.”

Lawyer John Stock representing Bratenahl residents,  
Intervenors.

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### *SUMMARY OF GROUPS OR LEADERSHIPS opposed:*

**GREAT LAKES WIND TRUTH, CITIZENS AGAINST WIND TURBINES IN LAKE ERIE (OH AND NY),** PARTNERSHIP FOR THE PRESERVATION OF THE DOWN EAST LAKES WATERSHED, PROTECT OUR LAKES, RICH DAVENPORT, RECORDING SECRETARY OF ERIE COUNTY FEDERATION OF SPORTSMEN’S CLUBS, LEN DEFRANCISCO, LONG TIME COORDINATOR OF THE RIPLEY HAWK WATCH, WHITELY COUNTY CONCERNED CITIZENS, LAUREL MOUNTAIN PRESERVATION ASSOCIATION, PORT CRESCENT HAWK WATCH, WELLS COUNTY CONCERNED CITIZENS, ONTARIO REGIONAL WIND TURBINE WORKING GROUP, PRESERVE THE WELLFLEET, GREEN ACRES SPORTSMAN’S CLUB, SAVE OUR ALLEGHENY RIDGES, WHITELY COUNCIL OF CONCERNED CITIZENS, SCOTT MCFADDEN, MAYOR OF CAVAN MONAHAN, ONTARIO, INTERSTATE INFORMED CITIZENS’ COALITION, NO WIND ALABAMA, HUNTINGTON COUNTY CONCERNED CITIZENS, MANVERS WIND CONCERNS KAWARTHA ONTARIO, AUGLAIZE NEIGHBORS UNITED, OHIOANS for AFFORDABLE ELECTRICITY, FRIENDS OF ARRAN LAKE, (MEMBER OF)



*CONCERNED CITIZENS OF DEKALB COUNTY, IN), ALLIANCE FOR WISE ENERGY DECISIONS, SAVE OUR LAKE (OHIO), INTER-LAKE YACHTING ASSOCIATION REPRESENTING APPROXIMATELY 60,000 MEMBERS AT 154 CLUBS THROUGHOUT THE REGION, SAVE THE EAGLES INTERNATIONAL, NORTH AMERICAN PLATFORM AGAINST WIND POWER, NO LAKE ERIE WIND FARM, SAVE OUR SKYLINE OHIO, WORLD COUNCIL FOR NATURE, FRIENDS AGAINST WIND (FRANCE)*

*Other OHIO groups or representatives of those groups that have asked for a more diligent approach to environmental controls on this proposal, escalation to an EIS, and some asking for a moratorium:*

*Michigan Boating Industries Association; Save Our Shores, Orleans County; Lake Erie Marine Trades Association (a Cleveland-based trade association of 100 plus boat dealers, marine operators, and service companies), Lake Erie Foundation (John Lipaj); to name a few.*

***Save Our Beautiful Lake, Cleveland***  
[https://www.saveourbeautifullake.org/  
davids@strangcorp.com](https://www.saveourbeautifullake.org/davids@strangcorp.com)

[Nolakeeriewindfarm.org](http://Nolakeeriewindfarm.org)  
***Tom Sullivan***  
[tcsjr@rpminc.com](mailto:tcsjr@rpminc.com)

***Lake Erie Foundation***  
***John Lipaj***  
[John.lipaj@gmail.com](mailto:John.lipaj@gmail.com)

*Legal objections at this time: John Stock, LLB, Cleveland, BSBO and ABC (Black Swamp Bird Observatory and American Bird Conservancy), represented by Colorado lawyer Bill Eubanks.*

Tom Sullivan Jr.  
Cleveland, OH  
[Nolakeeriewindfarm.org](http://Nolakeeriewindfarm.org)  
[tcsjr@rpminc.com](mailto:tcsjr@rpminc.com)

Joann Bolen  
6250 Mockingbird Lane  
Flint MI 48506  
COMMENT: Thank you and I am hoping to learn in the future that this project is defeated.  
[Amosmoses5273@live.com](mailto:Amosmoses5273@live.com)

Keith and Dawn Buehler  
13806 Botkins Rd.  
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Melissa Bolton  
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Gary Campbell  
President, Partnership for the Preservation of the Down East Lakes Watershed  
Hingham, MA  
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*There are at this time no effective and useful tools to measure possible or anticipated offshore mortality. The equipment and methodology do not exist. How for this unique migratory richness, could we ever allow an unnatural experiment on nature? We cannot.*

*From the media release ABC and BSBO, filing of suit in federal court vs. US Dept of Energy and US Army Corps of Engineers.*

*([Washington, D.C., December 11, 2019](#)) American Bird Conservancy (ABC) and Black Swamp Bird Observatory (BSBO) today filed suit in federal court against the U.S. Department of Energy and U.S. Army Corps of Engineers ([Case 1:19-cv-03694](#)). The suit focuses on the agencies' failure to comply with the National Environmental Policy Act (NEPA) and Clean Water Act, respectively, during their evaluation of environmental impacts and alternatives associated with the [Icebreaker Wind project](#). Icebreaker would place a precedent-setting wind energy facility in Lake Erie, offshore of Cleveland, Ohio.*

*Constructing turbines in the proposed project site would pose substantial collision risks to the enormous numbers of birds that use the area throughout the year, including large concentrations of migrating songbirds, as well as Common Loons, globally significant populations of [Red-breasted Mergansers](#), and other waterfowl. Further, construction and increased vessel traffic associated with the project could pollute the waters used by these species. Despite this, the agencies have failed to adequately evaluate environmental impacts and reasonable alternatives that would reduce the project's impacts.*

*“We regret that legal action is our only recourse,” said Mike Parr, ABC's President. “The agencies did not give this project the careful evaluation it requires under applicable environmental laws. In addition, American tax dollars are paying for more than a third of the project cost – but a Norwegian corporation is in partnership with the non-profit project implementer, LEEDCo. Why are U.S. taxpayer dollars supporting this in the first place? Migratory birds are a common good of the American people,” Parr added. “The government has a duty to protect them more than international business interests.”*

*If approved, Icebreaker would be the first offshore wind facility in the Great Lakes and only the second in the United States. The site selected by the developer, the Central Basin of Lake Erie, is within a National Audubon Society-designated [Global Important Bird Area](#) that draws millions of birds annually. Radar studies conducted by the U.S. Fish and Wildlife Service (USFWS) have recorded [large numbers of migratory birds and bats near Great](#)*

Lakes shorelines, including Lake Erie's south shore. Many were flying at altitudes that would be within the rotor-swept area of wind turbines, making these birds susceptible to collision-related deaths, injuries, and disturbances.

The Kirtland's Warbler is one such species. After more than 50 years on the endangered species list, this species has just been delisted and added to the list of successes under the Endangered Species Act. “Many agencies, NGOs, and other partners have worked for decades to see the Kirtland's Warbler recover from the brink of extinction,” said Joel Merriman, Director of ABC's Bird-Smart Wind Energy campaign. “We have no wish to see this undermined by an inadequately vetted energy project.”

Despite serious concerns regarding the risk of wind turbine-caused mortality and other impacts on birds, the Icebreaker proposal has moved forward over the last decade. Among other shortcomings, this precedent-setting project should have been evaluated through a comprehensive environmental impact statement (EIS) to comply with NEPA. USFWS — the agency with statutory jurisdiction and scientific expertise over U.S. bird populations — recommended that an EIS be developed, but was ignored.



*SIGNATURES and those opposed, CONTINUED*

Ann Carpenter

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Sherri Lange CEO

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Tracy Comer  
16011 Meranda Rd  
Anna, OH 45302  
COMMENT: Please add our names to the Lake Erie letter against Turbines in the Lakes.  
[mcomer@woh.rr.com](mailto:mcomer@woh.rr.com)

Ingrid Coyle  
5180 N. Airport Road  
Columbia City, IN 46725  
COMMENT: Wasn't there data about a vast amount of oil being used in the turbines that requires changing periodically, or sometimes leaking? This, of course, depends on the types of turbines used. Here in Indiana, there has been extensive information gathered by dedicated people who wish to prevent wind farms. There is an amazing amount of information now that has educated thousands of us about the environmental hazards. Please add my name to stop turbines in Lake Erie.  
[drivco@hotmail.com](mailto:drivco@hotmail.com)

Susan Crawl  
5099 County Road 12  
Waterloo IN 46793  
COMMENT: I would like to add my name to stop the wind turbines on the Great Lakes.  
[cscrawl@metalink.net](mailto:cscrawl@metalink.net)

Lorre Culp  
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Rich Davenport  
208 Walter Ave  
Tonawanda NY 14150

Recording Secretary: Erie County Federation of Sportsmen's Clubs Secretary:  
Western New York Environmental Federation  
Active Member: NEW YORK STATE Outdoors Writers Association (NYSOWA) COMMENT: Please  
add our names to the wonderful letter that you wrote. Thanks so much.  
[rich@weloveourdoors.org](mailto:rich@weloveourdoors.org)

Donna Davidge  
Protect Our Lakes  
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[amrita@mindspring.com](mailto:amrita@mindspring.com)

Len DeFrancisco  
405 W. Everett Street  
Falconer, NY. 14733  
716-665-2692  
COMMENT: Len is the former long-time Coordinator of the Ripley (NY) Hawk Watch.  
He also participated for many years at the Holiday Beach  
Hawk Watch located near Amherstburg, Ontario on Lake Erie's north shore.

Marie DeLuca Sales  
Director Lincoln Park  
Place 85 Bayside Road  
Quincey MA 02171

COMMENT: I am against wind turbines on the Great Lakes. [rubydeluca@gmail.com](mailto:rubydeluca@gmail.com)

Caroline Dennis

6821 South 275 West  
Colombia City, IN 46725

Whitely County Concerned Citizens

COMMENT: STOP THIS ABYSMAL ENERGY BOONDOGGLE!!!

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Pam and Art Dodds

Arthur W. Dodds, Jr., President

Laurel Mountain Preservation Association

Montrose, WV

COMMENT: Please add our group/name to your letter.

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Robert M. Gross  
8170 Pagan Road  
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COMMENT: Bob is a long-time member of the Presque Isle Audubon Chapter in Erie, PA.  
He was an eagle watcher in northwestern PA.

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COMMENT: Please add me to list of those against windmills in Lake Erie and anywhere.  
[jlienen@bright.net](mailto:jlienen@bright.net)

Larry Long President  
Whitley Council Concerned Citizens  
Whitley County IN  
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COMMENT: Thank you for caring about our world.  
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Peggy Chatman  
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Gaylesville, AL 35973

Renee Thompson  
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COMMENT: Keep us posted. These are just a few of our core members that saw me post. [nowindal@gmail.com](mailto:nowindal@gmail.com)

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has my support! [nowindal@gmail.com](mailto:nowindal@gmail.com)

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COMMENT: Don is a retired high school teacher who guided the school's Environmental Club. He is an eagle watcher in northwestern PA.

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Teresa Sculley

6651 Rohl Road

North East PA 16428

COMMENT: No government agency should be tampering with fresh ground water in the United States. Stop wind turbines in, on or near the Great Lakes.

[tsculley@hotmail.com](mailto:tsculley@hotmail.com)

David Seffernick

12258 Buckland Holden Road Wapakoneta

OH 45895

Auglaize Neighbors United

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Member:

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Keith Stelling PhD

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COMMENTS: Member of Concerned Citizens of DeKalb County IN  
We vehemently oppose wind farm developments.  
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Willem Post  
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COMMENT: I am opposed to this project because it is heavily subsidized and will not reduce CO2 on a cradle to grave basis, if externalities are accounted for. On top of that a steady flow of the revenue money will disappear into the hands of foreign companies for at least 20 years.

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COMMENT: The Icebreaker project violates the Public Trust Doctrine

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**Alliance for Wise Energy Decisions (AWED)**

**John Droz**

[Wiseenergy.org](http://Wiseenergy.org)

*AWED (Alliance for Wise Energy Decisions) is an informal, non-partisan, non-profit coalition of North American individuals, organizations, communities, and businesses who are primarily concerned about the future of the electrical energy sector. At AWED, we believe that we do have environmental and energy issues, and that such technical matters should be resolved by using real Science.*

[aaprjohn@northnet.org](mailto:aaprjohn@northnet.org)

**Shirley Dittman**

1298 Edgemere Drive

Rochester NY 14612

*Signature - Against Wind Turbines in Lake Erie.*

*COMMENT: I'm Totally opposed to any -- ANY - industrial development in Lake Erie OR any of the Great Lakes. We need to preserve our Fresh Waters.*

[Spd188@gmail.com](mailto:Spd188@gmail.com)

**DIEGO LOREDAN**

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SLOVENIA

[diego.loredan@gmail.com](mailto:diego.loredan@gmail.com)

Best regards

Diego Loredan



**Dorothea Titus**

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Barker, NY 14012

[saxbabe@aol.com](mailto:saxbabe@aol.com) (she does not have an email, so has asked that I submit for her, Chris Bronson)

**Strongly opposes LEEDCO**

**Christine Bronson**

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Barker, NY 14012

[saxbabe@aol.com](mailto:saxbabe@aol.com)

Robert Verheyne  
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[lakerbob1414@aol.com](mailto:lakerbob1414@aol.com)

We add our voice our strong objection to the LEEDCO project

Thank you.

Pauli Sommer  
Dungannon, Ontario  
[sommer@hurontel.on.ca](mailto:sommer@hurontel.on.ca)

COMMENT: I am adamantly opposed to any onshore or offshore industrial wind turbine projects... anywhere in the world.

Please add my name to the list - I think I signed in 2014 also.

**Norman A. Krotseng**

1190 Summit Ave  
Lakewood, OH 44107  
216-346-5347  
[akrotseng@yahoo.com](mailto:akrotseng@yahoo.com)

COMMENT: I delivered opposition comments to the Ohio Sitting Board meeting at Cleveland City Hall Council Chambers on behalf of **The Inter-Lake Yachting Association** representing approximately 60K members at 154 clubs throughout the region.

I support your efforts against Turbines in Lake Erie and the referenced Letter

Dave Hemingway  
78403 Whys Line  
R.R.#2 Bayfield Ontario N0M 1G0  
[davehemingway@gmail.com](mailto:davehemingway@gmail.com)

COMMENT: The health and Welfare of Bats is a higher priority in common sense about installing Wind Turbines. We have to thank the bats for protecting our health when Government does not!

Richard Roach (second signature over the years)  
895 River Rd.  
Youngstown, NY 14174  
COMMENT: Please do not allow turbines in one of the world's jewels, Lake Erie

[dick@dickandbevroach.com](mailto:dick@dickandbevroach.com)

Barb Ashbee (second signature over the years)

155922 7th Line, Markdale ON

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Barbara Durkin

Northboro, MA. 01532

[Bjdurk@aol.com](mailto:Bjdurk@aol.com)

Please add my name as signatory to your letter. Thanks.

Jim Feasel

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[jfeasel@who.rr.com](mailto:jfeasel@who.rr.com)

You may use my info as a protester against the Lake Erie IWTs project.

Good luck!

Diane M Hudok

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email [dhudok@gmail.com](mailto:dhudok@gmail.com)

You are more than welcome to use my name:

**Name: Chris Aichholz, OHIO ANTI WIND LEADERSHIP**

Address: 5739 East Township Road 58 Bloomville, Ohio 44818

Email: [caichholz@yahoo.com](mailto:caichholz@yahoo.com)

Phone: 419-618-1741

**My short comment:** This project should be a complete non-starter as the risks far outweigh what little benefits could come from this pilot project. This project has been a mess from the beginning with endless lack of studying and research. LEEDCO has NOT proven in the slightest that they have conducted adequate studies nor have they developed a plan to mitigate and control risk. Attorney John Stock did a fantastic job showcasing just how deficient their studies and methods for mitigation are. The only people that have signed off on this project are NOT experts in the areas they are opining on. I implore you to do what is best for Ohio and not a foreign investor who is just looking to soak up remaining subsidies! I urge you to NOT grant the certificate for this ill sited project.

Thank You!!

Tina Graziano

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Forestville, NY 14062

[tnagraziano@gmail.com](mailto:tnagraziano@gmail.com)



Richard E Dittman  
1298 Edgemere Drive  
Rochester, NY 14612

Email: [redspd@hotmail.com](mailto:redspd@hotmail.com)

COMMENT: Not a good idea to Industrialize any of the Great Lakes for any reason... especially Industrial Wind Turbines.

Please include my signature. Again, as many times as need be.  
Thank you.

Melodie Burkett  
[mmburkett@gmail.com](mailto:mmburkett@gmail.com)

Michael Spencley  
CEO, National Safety  
150 Bridgeland Ave, Ste 206  
Toronto, Ontario  
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[Maspencley@yahoo.com](mailto:Maspencley@yahoo.com)

Please add me as a signatory to the fine points you make below to Governor DeWine, and to the Chair of the Ohio Power Siting Board, Sam Randazzo. (below)

**Helen Schwiesow Parker, PhD., LCP**

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[windscoop.mvy@gmail.com](mailto:windscoop.mvy@gmail.com)

Please also submit the pdf below (attached) as an official comment / expert testimony to the record of the deliberations regarding permitting LEEDCo/Icebreaker.

Thank you.

Sincerely,

Helen Schwiesow Parker, PhD, LCP

Stop Oakfield Wind  
[Www.sewallhouse.com](http://Www.sewallhouse.com)  
[Www.donnadavidgeyoga.com](http://Www.donnadavidgeyoga.com)  
Donna Amrita Davidge  
[amrita@mindspring.com](mailto:amrita@mindspring.com)

Edward L Clark  
South State Route 231  
Tiffin, Ohio 44883

*Thank You*  
*Ed Clark*

Melodie Burkett (second signature)  
Ontario Canada  
[mmburkett@gmail.com](mailto:mmburkett@gmail.com)

Jeremy Kitson, well respected Ohio anti wind representative and educator  
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Jack Christman  
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110 Fredonia Rd.  
Greenville, PA 16125

Dennis I Kershner  
4919 Station Rd  
North East , PA 16428  
Please accept my vote as NO on Wind Turbines in Lake Erie.

Perrie'Lee Prouty  
[perrieleeprouthy@hotmail.com](mailto:perrieleeprouthy@hotmail.com)

I live in Maryland & have been monitoring (opposed) to wind turbines. I have worked with wildlife issues in Maryland since late 90's.  
If you feel I will be valuable in commenting for your endeavors, please let me know how.

Please use my name as well  
**Deb Hay**  
14040 Township Rd 178, Bellevue OH 44811  
Oh 419-483-7664

**My Statement:**

Placing industrial turbines in Lake Erie is one of the biggest transfers of wealth this region has ever faced. Future generations will judge these actions which will devastate the natural environment. All for a pittance of intermittent energy.

**Jim Herold**

6745 Warrington  
North Olmsted, Ohio 44070

**Save Our Beautiful Lake**

[Bigkahuna516@gmail.com](mailto:Bigkahuna516@gmail.com)

**Mary Kay Barton**

PO Box 69  
Silver Lake New York 14549  
[Mkbarton711@yahoo.com](mailto:Mkbarton711@yahoo.com)

My name is **Mike Mellor**, of 270 Harley Road, Blackheath, Johannesburg, South Africa.

I am aghast at the plan to site wind turbines in Lake Erie, or for that matter in any of the Great Lakes. Onshore wind turbines kill enough birds without adding aquatic species to the list of those threatened.

I fully support the letter which I have copied below. (Original note has entire letter copied)

Mike Mellor

**Dr. Katarina Dea Zetko**

Ulica bratov Rozmanov 4  
1000 Ljubljana  
Slovenia  
[katarinadea.zetko@gmail.com](mailto:katarinadea.zetko@gmail.com)

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**Dominic Mette**

President Friends Against Wind, France  
[Friends.against.wind@gmail.com](mailto:Friends.against.wind@gmail.com)

PLEASE NOTE THE SAMPLE OBJECTION LETTERS, OR LETTERS INDICATING LACK OF SCIENTIFIC RIGOR FROM THE DEVELOPER. MANY LETTERS CALL FOR INCREASED ENVIRONMENTAL SCRUTINY, AND LACK OF ECONOMIC BENEFITS, SURVEYS. THERE ARE HUNDREDS, IF NOT THOUSANDS NOW, IN THE FILES OR PAST FILES FOR THE LEEDCO/ICEBREAKER PROPOSAL.

WE MUST REMEMBER THAT THERE ARE PLANS FOR UP TO OR MORE THAN 1400 MORE MASSIVE MACHINES IN OUR DRINKING WATER. THIS IS NOT ABOUT SIX!

THERE IS OVERWHELMING EVIDENCE THAT THIS PROPOSAL IS NOT NEEDED OR WANTED. IT IS DESTINED, IF SUCCESSFUL, TO BE ANOTHER POSTER CHILD TO A VERY DANGEROUS, EXPENSIVE, AND UNWARRANTED EXPERIMENT ON NATURE.



*What industrial wind represents should be obvious to everyone: this is business-as-usual disguised as concern for the Earth. Far from genuine “environmentalism”, it is the same profit- and growth-driven destruction that is at the root of every ecological crisis we face.*

— Suzanna Jones, Vt., [\*The Eagle\*, Feb. 6, 2013](#)



**Dr. Scott Petrie, Chief Executive Officer**  
Delta Waterfowl | The Duck Hunters Organization™  
1312 Basin Ave. | Bismarck, ND 58504  
(519) 718-1371 | [Spetrie@deltawaterfowl.org](mailto:Spetrie@deltawaterfowl.org)

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March 29, 2019

**Ms. Mary Mertz**

**Director of Ohio Department of Natural Resources**

Dear Ms. Mertz,

Delta Waterfowl would like to offer our perspective related to the LEEDco proposal to place industrial wind turbines offshore in Lake Erie.

Delta Waterfowl is the oldest waterfowl conservation organization in North America, tracing our roots back to 1911. Delta's longstanding role has been to conduct waterfowl research, and as such, we have the technical expertise to provide perspective and commentary on issues such as these. We are concerned with this proposed industrial development based on the fact that Lake Erie is on the confluence of the Atlantic and Mississippi Flyways and is at the southern-most point of the lower Great Lakes. Lake Erie is situated perpendicular to the migratory movements of waterfowl and a plethora of other birds (e.g., songbirds, birds of prey, cranes) and insects (e.g., monarch butterflies) that filter through this region in massive numbers during spring and fall. As such, Delta Waterfowl is concerned about mortality and displacement associated with the offshore development of industrial wind turbines on Lake Erie.

Based on our assessment and experience, we have concerns that the proposed wind farm will adversely impact a number of avian (displacement and direct mortality) and bat (mortality) species. Delta Waterfowl's primary interest in the issue is that siting decisions are made as to not have deleterious impacts on waterfowl in the region proposed for development. Unlike other interest groups, our primary concern is generally avoidance (and thus rendering habitat unusable by ducks, geese, swans and other migratory birds), however, based on the fact that this area is such a pinch point or funnel for migratory waterfowl, we definitely have collision-mortality concerns for all species migrating through this region.

Waterfowl generally avoid industrial wind developments (Larsen and Madsen 2000; Desholm and Kahlert 2005, Stewart et al. 2005, Larsen and Guillemette 2007, Masden et al. 2009, Fijn et al. 2012, Rees 2012) which is problematic when turbines are placed in and close to important waterfowl habitats, and/or across migratory or feeding flight corridors. It is our professional opinion that if the proposed industrial wind development is constructed, it will adversely impact spring and fall staging waterfowl. We are also fearful that as Lake Erie is further developed (other states and provinces) in this regard, there will be very serious

impacts on migratory waterfowl, which could ultimately have barrier (disruption of migratory corridors) impacts to migrating birds.

Several studies have indicated that waterfowl are effectively excluded from utilizing areas within 150 m of IWTs and tend to avoid areas within 500 m of a turbine (Larsen and Madsen 2000; Desholm and Kahlert 2005, Stewart et al. 2005, Larsen and Guillemette 2007, Masden et al. 2009, Fijn et al. 2012, Rees 2012), and waterfowl Scientists advocate that IWTs not be placed within 1 km of waterfowl roosting areas, feeding corridors and important migratory pathways (see Stelling and Petrie 2013). Our assessment indicates that this proposed industrial development would violate these recommendations and consequently we have very serious concerns if these IWTs were to be constructed.

Another significant concern is that insufficient monitoring has been conducted by the proponent. It has been recommended that 3 years of intensive pre-construction monitoring is necessary to ascertain potential impacts of IWTs on waterfowl. We strongly recommend that this industrial development be relocated due to the importance of the region for migratory waterfowl and other wildlife. In the unfortunate event that the project is not relocated, the proponent should delay the project until such time that they can provide 3-years of intensive monitoring of migratory waterfowl and other wildlife. We would also request that the research be done by an independent organization and not by the proponent. Furthermore, we have concerns that this industrial development would have a substantial impact on Ohio residents and non-residents that hunt waterfowl in that region.

I trust that the primary goal of the Ohio DNR is to protect resident and migratory wildlife in your state. As such, Delta Waterfowl appreciates your willingness to consider identified impacts to migratory birds in your decision in this regard.

Sincerely,

A handwritten signature in cursive script, appearing to read "Scott Petrie".

Dr. Scott Petrie

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## OPEN LETTER

20 October 2016

From: World Council for Nature

To: US Department of Energy (DOE), attention Mr. Roak Parker

Cc: Mr. Matt Butler, OPSB

Mr. Joseph Krawczyk

Re: Project EA-2045 "Icebreaker" (Old Case Number 2014)

Dear Sir,

The World Council for Nature (WCFN) learned with consternation the revival of the plan to erect wind turbines in the Great Lakes, in this case western Lake Erie, one of the world's busiest migration hotspots for water birds, songbirds, and raptors including iconic eagles. The name of the project, "Icebreaker", announces to wind developers everywhere that, if approved, the Great Lakes will be open to their greed, as is the rest of the country.

The massacre of 2,900 golden eagles and over 250,000 other birds by the wind turbines of Altamont Pass has taught you nothing, obviously. Why care about the Great Lakes, the quality of their waters, and the millions of birds crossing them twice a year in their migrations when the media at large has given carte blanche to the wind industry? If it's not in the press, Washington couldn't be bothered, right?

In the rolling hills of Altamont, new wind turbines will replace the old ones and continue hacking raptors to death for another 25 years. A "study" was done predicting that the bigger turbines will kill only half as many eagles, and this was deemed satisfactory by the US Fish and Wildlife Service, under Washington's orders. What the study didn't say is that if "only" 1,500 golden eagles will be killed it's because their numbers across the Western United States has dwindled since the onslaught of "green" policies.

There is no dearth of consultants who will sign reports saying what the wind industry and the Administration want to hear, e.g. that no harm is being done to the overall population of whooping cranes, California condors, eagles etc. Their bought "science" has no intrinsic value whatsoever, but it's enough to provide decision makers with the excuses they need to look the other way while developers destroy the American wilderness and its biodiversity. Lobbies call the tune in Washington DC, and the American people had better get used to the idea. Correct?

No doubt "green" NGO's will applaud to the planting of ineffective, polluting wind turbines in the Great Lakes, and that bird societies will give their approval provided more money is given to them for "mitigation" and "compensation". With such cheerleaders, who can blame you for helping with the destruction?



Your responsibility will be paramount in this eco-disaster. I guess the Fish and Wildlife Service felt uncomfortable in the role you are now playing. After all, their mission is to protect American wildlife, not to help it disappear.

Yours, sincerely

Mark Duchamp  
Chairman

## FLYING ANIMALS DESERVE TO BE SAFE OVER LAKE ERIE

Anyone who agrees with this statement must also strongly oppose the construction of an industrial wind energy facility in the waters of Lake Erie. Lake Erie Energy Development Company (LEEDCo) has been proposing to do just that since 2011, and has now partnered with Fred Olsen, a wealthy wind developer from Norway. Their permit application to the Ohio Power Siting Board (OPSB) is currently pending action.

The project, called Icebreaker Wind Inc., has morphed from nonprofit to for-profit status and is touted as a “demonstration scale project to assess the potential success for future larger scale offshore wind farms in Lake Erie and the other Great Lakes”. Yes, these 6 monstrous industrial wind turbines with a height of about 480 feet offshore of Cuyahoga County are intended to be the start of evolving the Great Lakes into a massive industrial wind power facility. For the sake of answering the question that is the title of this article, let’s set aside the human and other environmental costs of this horrific idea for now.

In October 2017, I submitted the following comments to the United States Department of Energy (USDOE) regarding the Icebreaker project:

**“AVIAN SLAUGHTER:** In its assessment submitted to the OPSB in response to the first Icebreaker proposal (then Case # 13-2033-El-BGN), the USFWS stated, “The waters around Cleveland provide important overwintering habitat for gulls (herring, ring-billed, Bonaparte’s, great black backed), ducks (greater and lesser scaup, red-breasted and common mergansers, goldeneye, bufflehead, redhead, canvasback), common loons and horned grebes. During winter, flocks of over 10,000 birds are not uncommon...”

**The document goes on to describe Icebreaker documents citing European offshore wind energy experience, but fails to mention that several European countries have banned offshore wind facilities from within 12 miles of the shoreline, suggesting this is likely due in part to the congregation of waterfowl nearer to that from shore!** Even LEEDCo’s own environmental assessment reported that between 4-13% of migrants fly within the height of modern turbine rotors and that ten to hundreds of millions of birds migrate over Lake Erie! The USFWS states, **“Based upon these numbers it would mean that between 400,000 to 13,000,000 songbirds fly at rotor swept height when flying over Lake Erie.”** The Service also stated, based on radar studies of Lake Erie’s southern shore, that “vast numbers of birds and bats migrate along the shoreline and TRAVEL ACROSS THE LAKE.” And whether radar or other sophisticated studies, particularly those studies submitted by the wind industry, claim the Project area is not heavily used by migrants, it will not matter. Different avian species do not follow the same path

every year. High and low air pressures, temperatures, wind speed and direction, all impact migratory routes. Where are five-year studies by LEEDCo that prove low numbers in the Project area? I don't believe any exist. Even if they did, they would be much less valid than if done by an entity NOT paid by the wind developer. Even more troublesome, reporting of avian deaths by wind turbines are tracked and reported by the wind companies, not by government at any level, by independent contractors assigned by government or other neutral parties. It is commonly compared to "hiring the fox to guard the hen house." Carcass counting is typically performed on a schedule, like 8 hours once every 30-60 days, and within a strictly defined parameter. In a Great Lake, it would be impossible to track, with carcasses being washed away or sinking. That is why the number of U.S. avian deaths by turbines vary between 585,000 per year (USFWS) with bats much higher at 800,000 per year, and somewhere between 13,000,000 and 31,000,000 (Spanish Ornithological Society). No one knows!

The ODNR also responded, saying in regard to red-breasted mergansers, "Lake Erie is an extremely important staging area for this species, with huge numbers congregating in November and early December. **Some observers have estimated as many as 250,000 red-breasted mergansers being seen from one spot in one day.**" This was corroborated by Kathy Murphy of the Western Cuyahoga Audubon Society on their webpage on 2/11/2017. They are just one of the 350-400 species of birds, bats, and waterfowl found in, along the shoreline, and flying over Lake Erie.

Regarding bats and raptors protected under the Migratory Bird Treaty Act, both the ODNR and USFWS submitted letters to the OPSB on April 7, 2014 and March 24, 2014 respectively with serious concerns regarding potential deaths the Project would cause. That included endangered bat species. Because the original application was withdrawn, this information is no longer readily available on the OPSB website. However, the Project remains the same and these scathing reviews should not be lost. Even so, the *entire central basin* of Lake Erie is designated a *Globally Important Bird Area* by the National Audubon Society and Bird Conservation International!"

This is not new information! Back in March 2011, Jeff Schmidt, Chapter Director of the PA Sierra Club testified to the PA State Legislature regarding placement of IWTs in Lake Erie. He testified, "Lake Erie is unique among the Great Lakes because its shallow depth provides forage grounds for ducks, loons, horned grebes, and other waterfowl across its entire surface. Shorebirds, songbirds, and raptors all cross Lake Erie at varying altitude and locations. Migratory birds are already stressed...". He goes on to state, "Lake Erie is unique in that its shallow depth provides potential habitat for pelagic birds across most of the lake's surface. The USFWS and Ohio DNR recently

completed a two year study with over 75,000 observations to map pelagic bird distribution and abundance in the Ohio waters of Lake Erie".

Be sure, once these IWTs are allowed to be built, there will be NO mitigation. How do you replace dead birds? It won't matter. It is the responsibility of the wind developer to count and report dead birds. Seriously. An example of how that works is Wolfe Island, a small Canadian island at the eastern end of Lake Ontario. A relatively small project consisting of 86 turbines, 1,141 bird, 24 raptor, and 1,720 bat collision fatalities were reported during the first year alone! That does not include the carcasses that were blown into the lake, the injured birds that flew over the lake and then died, or the carcasses that were eaten by small mammals or vultures, or the flocks and individual numbers of geese, ducks, and other waterfowl that have been recorded flying into the turbine blades. The public outrage from this horrendous bloody, painful slaughter, leading the project to be referred to as the deadliest energy facility in Canada, resulted in new "management" procedures. This "management" is a revised counting strategy, consisting of counting carcasses in a small gravel area below the turbines and counting infrequently. This bogus counting and reporting by the wind industry has resulted in unrealistically low numbers of birds believed to be killed by IWTs, a fallacy that is accepted by our own government as well. I don't need to multiply those deaths caused by 86 IWTs to what we can expect from a possible one thousand turbines that are the ultimate goal of LEEDCo and Fred Olsen of Norway. It wouldn't matter anyway, as it is impossible to accurately count the deaths that would occur day and night in the middle of Lake Erie.

An example of avian carnage that cannot be ignored or forgotten is the data from the Altamont Pass wind "farm" in California. Reported to having killed a heinously low number of 67 golden eagles annually for over twenty-five years, these numbers have been scientifically disputed by several wildlife biologists. One such report, published by Ron Arnold, Center for the Defense of Free Enterprise, reviewing information from respected researcher Teresa Platt states:

"... harsh facts were condensed into a preliminary draft study of wind subsidies by researcher Teresa Platt, who circulated it to specialists for vetting. I obtained a copy of the extensively footnoted working draft, which gave chilling reality to the truth behind wind industry claims.

'Every year since the 1980s,' Platt's study said, 'the 5,000 turbines at NextEra's Altamont Pass in California kill thousands of slow-reproducing red-tailed hawks, burrowing owls, kestrels, as well as iconic golden eagles, and bats.' The birds Platt mentions are

raptors – birds of prey – particularly valued for their agricultural role in killing mice and other crop-damaging rodents. Eagles, both golden eagles and bald eagles, have long impressed Americans for their majesty, and the bald eagle was selected by our Founding Fathers as our national emblem.

I asked Bob Johns, spokesman for the American Bird Conservancy, about wind farm eagle mortality. He confirmed Platt's study and told me the Altamont operation alone has killed more than 2,000 golden eagles. But that's not all. 'Nationwide, the wind industry kills thousands of golden eagles without prosecution,' Johns said, 'while any other American citizen even possessing eagle parts such as feathers would face huge fines and prison time.' "

Coupled with the thirty-year golden and bald eagle "take permits" authorized by President Obama, it appears that we have become desensitized to avian, including our cherished eagle, slaughter. Is Lake Erie destined to become the next Altamont Pass?

Enough data. Look to the sky. Embrace the innocence, the flight above the earth of these unsuspecting amazing creatures doing what they have done for 150 million years longer than we have inhabited the planet. Yet, we continue to degrade our environment in ways that these avian dwellers cannot understand or readily adapt to, if at all. We are a species consumed with our own needs, without adequate regard for the birds, bats, and millions of other species we share this space with. In fact, birds are more important to the health and balance of the ecosystem than we are, yet we slaughter them without conscience. Is there a way to convince wind energy developers of this fact? For the past two decades, multiple organizations and individuals worldwide have tried, to little or no avail. One fact is glaringly clear. The survival of flying animals over Lake Erie, and ultimately all of the Great Lakes if the Icebreaker Wind, Inc. is allowed to be built, is in human hands. Our human hands.

Suzanne Albright  
Rochester, NY

Great Lakes Wind Truth, Founding Member and Principal  
Braddock Bay Raptor Research, Volunteer Educator and Owl Survey Team Member  
Save the Eagles International, Member

#### Sources:

1. OPSB Case No. 13-2033-EL-BGN, LEEDCo Icebreaker project.

2. <http://savetheeaglesinternational.org/new/us-windfarms-kill-10-20-times-more-than-previously-thought.html>.
3. Rebecca Horton, et al., "Great Lakes Avian Radar Technical Report, Lake Erie Shoreline: Erie County, Ohio and Erie County Pennsylvania, Spring 2012." U.S. Department of Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTP-R3012-2016.
5. Ron Arnold, Executive Vice President, Center for the Defense of Free Enterprise: Frontier Centre for Public Policy, May 28, 2013.
4. Altamont Pass Wind Resource Area Bird Fatality Study, Bird Years 2005–2009.
6. Testimony of Jeff Schmidt, Chapter Director, Sierra Club PA Chapter: Offshore Wind Energy in Pennsylvania, March 14, 2011.
7. Jim Weigand, wildlife biologist, letter to the USDOE- 2016.

## DAVID STRANG NOTES FOR SPEAKING

### NOT Environmentally Friendly! NOT In the Public Interest.

#### Environment – First Do No Harm

- The killing of birds and flying animals by wind turbines is well documented. The OPSB has ample studies proving this. The OPSB also has ample studies evidencing that birds and flying animals fly on all parts of Lake Erie including the proposed turbine locations. This includes endangered species like the Kirtland Wobbler. The American Bird Conservancy and the Black Swamp Bird Observatory has submissions to the OPSB on this.
- In March, 2011, Jeff Schmidt of the Pennsylvania Sierra Club testified to the Pennsylvania State Legislature. He stated that "Lake Erie is unique among the Great Lakes because its shallow depth provides forage grounds for ducks, loons, horned grebes and other waterfowl across its ENTIRE surface. Shore birds, song birds and raptors all cross the lake at varying locations and altitudes and migratory birds are already stressed.

Lake Erie is unique in that its shallow depth provides potential habitat for pelagic species across most of the lake surface. Ducks and geese number approximately 100,000 in the winter. The entire Lake Erie central basin is a designated globally important bird area according to the National Audubon Society and Bird Conservation International Society. **Based on studies by the Fish and Wild Life Service, from 400,000 to 13 million songbirds fly at the height of the wind turbine blades over the course of one year.**

This study was previously presented to the Ohio Power Siting Board. Most European countries forbid building wind turbines with 12 miles of shore due to bird and water fowl migration. Bald Eagles have made a significant but still fragile come back around Lake Erie. According to the ODNR most eagles nest along the shores of Lake Erie. Two weeks ago I had

a Bald Eagle fly over me at Edgewater Park. We still fund eagle restoration projects.

- Threat to our water quality:  
Century old dredge material from toxic Cuyahoga dumped all over the lake and sits undisturbed under sediment. These will be just up current from the crib intake and their bases will be 15-30 feet into the lake. Flint Michigan had government scientist tell them their water source changes would be safe and they were wrong. The cost of being wrong is astronomical. Is Fred Olsen going to personally guarantee damages and bottled water for 11 million people? What about the fish and wildlife?
- According to LEEDCO/Fred Olsen filings each turbine will have 404 gallons of oil or lubricants. There are many documented cases of unexpected oil leaks from wind turbines including those in Huron County Michigan. Oil leaking into our fresh water great lake is a disaster waiting to happen. There are no guarantees against this.
- The infrasound effects from the Industrial wind turbines have caused documented negative health effects. The whooshing sounds travel unobstructed over water and will have unknown negative health effects to those in the near shore communities.

#### In the Public Interest?

- The Lake is held in a public trust which states the title is held in trust for the people of the states that border them to be free from obstruction or interference of private parties. Ohio statute states that the public trust doctrine applies to Lake Erie. "For Public Uses". This is not a public use. It is for the after tax benefit of Fred Olsen Company and its foreign shareholders.



## Jobs

- This project is a demonstration project and will produce minimal permanent local full time jobs. Block Islands 5 wind turbines has five permanent full time jobs. Any notion that Cleveland will be a hub of turbine manufacturing is erroneous. At a June 27, 2018 meeting Lorry Wagner CEO of LEEDCO said that Fred Olsen can export turbines from Cleveland to the East Coast because the East Coast does not have manufacturing. This is patently false. I'm sure every community on the East Coast is being promised manufacturing jobs to approve the installation of wind turbines. Most communities are instituting 30 mile zoning requirements.
- Ontario Canada has lost thousands of jobs due to wind (and solar) turbine development and the massive subsidies. Ontario permitted the installation of thousands of on-shore wind turbines which caused the power costs to increase substantially. Businesses reacted by moving production to places with cheaper power costs. The newly elected premier of Ontario declared the number one issue citizens brought up with him was electricity rates. He immediately declared a moratorium on new wind turbine subsidies thereby shutting down the industry. This was done to preserve jobs. Let's not repeat Ontario's mistake.

## Property values and Property Taxes

- Many communities with wind turbines have experienced decreasing property values and property taxes including Wolfe Island on the Eastern Shores of Lake Ontario. Property taxes fund local schools and local governments.
- Spending our tax dollars on expensive offshore turbines and charging exorbitant prices for power is an assault on the public interest.

## Quite Enjoyment

- Lake Erie's pristine beauty is an inspiration to tourists, residents, fisherman, birders, and recreation enthusiasts, runners who run along the lake, boaters, sailors, kiteboards, windsurfers, photographers, and all who depend on it for quiet enjoyment. The lake belongs to us; why would your officials even consider leasing a large portion to an oil and gas company owned by a foreign billionaire who only wants the tax credits and mandated rate increases.

6901 Moore Road  
Mayville, NY 14757

October 21, 2016

Mr. Roak Parker  
U.S. Dept. of Energy

Dear Mr. Parker

I am writing as co-chair of the conservation and education committee of the Hawk Migration Association of North America in support of concerns regarding the LEEDco permit from the Ohio Power Citing Board. This letter essentially states HMANA's opposition to wind power development in Lake Erie off the Ohio shore as proposed by LEEDco and transmits to you HMANA's 2013 update to its policy statement on wind power development.

The Hawk Migration Association of North America's official mission is to conserve raptor populations through the scientific study, enjoyment and appreciation of raptor migration. As a scientific, educational and conservation organization, HMANA collects data from hundreds of affiliated raptor monitoring sites throughout the United States, Canada and Mexico, and publishes a journal "Hawk Migration Studies" that includes data from participating hawk watches as well as articles on raptor conservation and other issues impacting raptors.

HMANA is concerned about the threat posed by industrial wind energy developments to migrating, nesting and wintering raptors. Some industrial wind energy developments have been clearly demonstrated to cause high mortality rates in a variety of raptor species, frequently as a result of inappropriate siting. It appears that the project proposed by LEEDco for Lake Erie waters may be such a project.

HMANA's wind power policy strongly advises against wind power development in areas with landscape features known to attract raptors (such as coastlines), in areas formally designated as Important Bird Areas, and in areas that experience concentrations of wintering, nesting and migrating raptors. The offshore waters of Lake Erie have been documented as an important foraging area for several species of raptors, the coastline also constitutes a landscape feature known to attract raptors. During migration, sometimes large concentrations of migrating raptors are reported over water and may be at risk from offshore windpower development. The studies that have currently been completed for the LEEDco project are insufficiently robust to evaluate this risk.

The offshore waters of Lake Erie appear to be a poor location from the point of view of raptor conservation. But if it were not disqualified for wind development on the basis of landscape features or concentration of wintering, nesting or migrating raptors, then HMANA's policy advises that specific, stringent, multi-year pre-construction studies be undertaken. These studies should be coordinated with post-construction mortality studies, designed by qualified and independent consultants in collaboration with national and provincial regulatory and conservation agencies, appropriate non-governmental conservation and scientific organizations and independent experts. The design and findings of such studies should be peer-reviewed and

publicly accessible. Multi-year studies of this quality do not appear to have been undertaken for the LEEDco project.

Because of the above concerns, an industrial wind power project as proposed by LEEDco should not be allowed in the offshore waters of Lake Erie at this time. As mentioned above, I attach HMANA's policy statement on wind power development.

Thank you for your attention to these comments.

Sincerely,

Gil Randell

Conservation Committee Chair Hawk Migration Association of North  
America [janngil@fairpoint.net](mailto:janngil@fairpoint.net)

cc: Matt Butler, Ohio Power Siting Board; Governor John Kasich; Joseph Krawczyk; Sherri Lange, NA-PAW

### **HMANA Industrial Wind Turbine Siting and Monitoring Policy**

The following update to the July 2008 policy on industrial wind turbine siting and monitoring was adopted by the HMANA Board of Directors on June 17, 2013. This update reflects changes between the U.S. Fish and Wildlife Service's interim guidelines (2003) and its current (2013) Land-Based Wind Energy Guidelines (LBWEG).

The Hawk Migration Association of North America's official mission is to conserve raptor populations through the scientific study, enjoyment and appreciation of raptor migration. As a scientific, educational and conservation organization, HMANA collects data from hundreds of affiliated raptor monitoring sites throughout the United States, Canada and Mexico, and publishes a journal Hawk Migration Studies that includes data from participating hawk watches as well as articles on raptor conservation and other issues impacting raptors.

HMANA is concerned about the threat posed by industrial wind energy developments to migrating, nesting and wintering raptors. Wind conditions favorable for industrial wind energy projects may coincide with locations where concentrations of raptors occur. Industrial wind projects have been placed and are being proposed along known migratory flyways and near nesting and wintering concentrations of raptors. Some industrial wind energy developments have been clearly demonstrated to cause high mortality rates in a variety of raptor species, frequently as a result of inappropriate siting.

The National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Migratory Bird Treaty Act (MBTA) and other federal legislation require federal agencies to carefully consider and assess the possible adverse effects in their projects and permitting practices. HMANA supports federal guidelines for the siting of wind power projects that are consistent with and at least as rigorous as provisions in the NEPA, the ESA, the MBTA and other existing federal legislation. Accordingly, although the U.S. Fish and Wildlife Services's recently released, Land-based Wind Energy Guidelines (LBWEG) purport to encourage the development of environmentally responsible wind energy facilities, because compliance with the guidelines is voluntary and because of other problems with the guidance, these guidelines do not appear to meet the stringent standards established by NEPA, ESA or MBTA.

Other problems with the LBWEG as perceived by HMANA include its failure to require that developers of industrial wind energy projects avoid known bird migration pathways and daily movement flyways, avoid features of the landscape known to attract raptors (such as ridge lines and coastlines), avoid areas formally designated as Important Bird Areas and avoid documented locations of any species protected under the federal Endangered Species Act. Such requirements would have been consistent with the U.S. Fish and Wildlife Service interim siting guidelines proposed in July 2003, which HMANA strongly supported. Unfortunately, the current LBWEG guidelines constitute a significant departure from the interim guidelines, failing to establish permanent and binding regulations or guidelines that provide clear, unambiguous federal guidance to the state and local governments that must make decisions regarding the proper siting of proposed projects.

As articulated by the U.S. General Accountability Office report of 2005 and the National Academy of Science report of 2007, there is currently a lack of knowledge about the impacts of new-generation turbines on raptors. Unfortunately, it appears necessary to go beyond the current LBWEG's recommendations in order to establish and consistently apply pre-construction and post-construction monitoring procedures for industrial wind power projects that are capable of improving the understanding of risk to wildlife posed by industrial wind power projects. Because knowledge of raptor migration and other behavior patterns is incomplete and raptor monitoring demonstrates high year- to-year variability in numbers of migrants at most sites, mandatory design and siting standards should require the collection of at least three years of pre-construction study data for projects where landscape features, natural history patterns or other data suggest raptor concentration is possible. Pre-construction studies of raptor behavior should not be limited to migration issues but should be comprehensive and include not only the risk associated with direct turbine strikes and possible avoidance behavior, but also terrestrial habitat degradation and its effects on nesting and wintering raptors, as well as the effect of such degradation on migrating raptors' roosting needs.

When multi-year preconstruction studies confirm migration, wintering or breeding season concentrations of raptors in a particular area, then plans for development in that area should be abandoned and development forbidden; if such study shows minimal concentration of raptors, or if specific designs can be demonstrated to pose minimal danger to wildlife present in the area, then projects can be considered. In such cases, when developers have invested in diligent efforts to locate wind power development appropriately, it is still possible that post-construction monitoring might show an entire project or individual turbines to be particularly fatal to raptors: when this happens, turbines must be decommissioned or their operation suspended during the periods when the problematic turbines are found to be most destructive. Developers must agree to such remedial action as a precondition of project approval by federal, state and local permitting agencies.

HMANA urges that international, national and state and provincial standards for pre- and post-construction monitoring be promulgated and enforced that will make possible the scientifically valid assessment of risk associated with industrial wind power development. In light of the absence of binding standards for pre- and post-construction monitoring, monitoring protocols must be specifically designed for each project by qualified and independent consultants in collaboration with federal or national regulatory and conservation agencies (e.g. the USFWS), state or provincial agencies, appropriate non-governmental conservation and scientific

organizations and independent experts. The protocol for this monitoring and the monitoring results must be peer-reviewed and publicly accessible.

The USFWS should be closely involved with designing and implementing preconstruction studies and post construction monitoring of projects. Since compliance with USFWS guidelines is only voluntary for developers, such close collaboration with the USFWS in individual projects is far from assured. An incidental Bald and Golden Eagle take-permitting process has been created in part to encourage developers to consult with the service in the development and implementation of energy projects. The USFWS grants incidental take permits on the basis of a developer's commitment to incorporate specific features and standards in their projects and perhaps engage in certain activities that mitigate damage to wildlife that may occur as a result of any specific project.

Currently, incidental take permits must be renewed every five years, but the service is proposing to extend the life of a take permit to 30 years. While this may further encourage developers to engage with the USFWS through the permitting process, thereby allowing the service to more aggressively seek the incorporation of specific safeguards (or studies or monitoring activities) in the design and implementation of energy projects, such extensions of take permits from five to 30 years neutralize the effectiveness of post-construction mortality monitoring and protect the developer from submitting to any public review of a project's damages to eagles or to a review of the project's compliance with the conditions of the take permit. HMANA opposes any extension of the time period for take permits that removes the necessity for periodic public review, and HMANA finds the current five-year life span of take permits to be appropriate. Incidental eagle take permits can require modifications to a project that reduce the risk that project poses to eagles; take permits can also require mitigation activities that are meant to compensate for anticipated harm to eagles. Such compensatory actions can include initiatives largely unrelated to the specific risks posed by specific projects, such as the donation of land to conservation trusts or to land conservancies. While mitigation actions unrelated to the specific risks of an energy project may generally be environmentally advantageous, they should not replace actions that would directly address the specific risks of a project.

HMANA supports alternative energy technologies if they can be shown to pose minimal risk to wildlife when appropriately designed, sited and developed. New approaches to wind turbine technology and design in particular might be possible in the near future that pose less risk to wildlife and habitat. HMANA urges investment in research into such new technologies and their development.

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**Dear Governor DeWine, and  
Sam Randazzo, Chair of the Ohio Power Siting Board,**

Please accept this short comment relevant to your deliberations re allowing SIX MASSIVE TURBINES OFF SHORE OF CLEVELAND.

Please retain the information presented as relevant also to permitting any further such industrialization of Lake Erie, or any of the Great Lakes. Such action would be absolute folly.

I write to you as a PhD, Licensed Clinical Psychologist and a Past Clinical Supervisory Faculty member at the University of Virginia Medical School. My career includes practical experience in the fields of autism, sensory perception, memory and learning, attention deficit and anxiety disorders, including panic disorder and PTSD.

For the past twelve years I've immersed myself in the research, witness accounts, and first-hand experience of the human health impacts of industrial scale wind. Should these turbines be installed and begin to turn, people will get sick from them.

Infrasound is real. Its impact on human health has been known, documented and then aggressively hidden by the wind industry for over 30 years. The Israeli army has used low-frequency sound pulse as high-tech crowd control for decades.

When Denmark's EPA proposed tightening turbine noise regulations to protect turbine neighbors, the Vestas CEO admitted: 'Turbines send out ILFN; the bigger they are the more intense the emissions... Why not make changes to reduce the ILFN? It is not technically possible to do so.'

**ILFN has been measured 56 miles from a 96MW land-based array in NM. Sound travels at much greater distances over/under/in water.**

Sub-audible sound waves sent out through the air as the blades spin past the shaft set up vibration and resonance in our body cavities - ears, ocular orbs, skull, our lungs and bellies. They weaken cardiac tissue and lead to irreversible pericardial thickening.

Thousands of industrial wind turbine neighbors worldwide have reported the same symptoms, including headaches, dizziness, anxiety, nausea, fluctuating pressure and ringing in the ears, increased blood pressure, difficulty with memory and concentration, depression, and panic attacks arising when awake or asleep.

This is the Wind Turbine Syndrome.

Turbine infrasound has a direct physical impact on ~10-30% of the population. Most vulnerable are children, elders, and those who are especially reactive to sensation - those with a prior PTSD, autism, abuse victims.

Because of the unwillingness of the media and of politicians generally to pause, look critically at the propaganda coming from BigWind, and disseminate relevant truths, **as a nation we are ignorant** of not only the harm brought on by these monstrous turbines, but ignorant as well **of the fundamental truth that, whatever the climate challenge - BigWind is not the answer.** Indeed, adding wind inefficiencies into the energy portfolio increases fuel usage and CO2 emissions.

Please consider the facts presented in the ~400-word 5th-grade-level science presentation below. You will make a difference and be applauded by your constituents; your legacy will be defined by your recognizing the truth of BigWind ahead of the curve of our well-intended but woefully un-informed society.

Electricity requires continuous and instantaneous balancing of supply to meet demand. Turbine output is unpredictable and varies continuously, chaotically responsive to small changes in wind speed. Ever at the ready, rapidly responsive entangled conventional generators must be deployed to balance this ebb and flow.

When intermittent wind power comes in (largely off-peak and off-season), the conventional plant is cut back (with energy shed in the process), then inefficiently ramped up when the wind dies.

Batteries? Nowhere near ready to fill in when the wind dies. Total US battery storage could power us for 14 seconds.

Here on Martha's Vineyard, where we are being asked to welcome the first full scale offshore wind array in America, where MA taxpayers are tasked with a \$2.1 billion giveaway to the developer, we're told that the project will generate 800MW of energy, enough to power 400,000 homes. Such a lie!

800MW is 100% of the Vineyard Wind project's nameplate capacity. **Real world production of offshore wind arrays? 39% output initially, 15% output after 10 years.** Are you being fed the same easily discoverable lies? Is BigWind making fools of those in Ohio responsible for this LEEDCo/Icebreaker decision?

It's crucial to understand that while WIND HAS NO REAL VALUE, its cost and footprint are enormous. Wind energy itself is so diffuse, light as air, that any harvesting mechanism must be MASSIVE.



Imagine the raw materials going into these things, the fossil fuel used and CO<sub>2</sub> emitted in the manufacture, transportation, installation, maintenance... and de-commissioning of the turbines after just 10 years!

To produce 500MW of low quality, sputtering, and unpredictable energy - an amount equal to the output of a natural gas plant spread over a few acres - we'd need an array twice the size of the proposed VW project: 168 turbines over 700' tall, operating at a favorable 30+% capacity - occupying over 500 square ocean miles, wreaking untold devastation on the ocean floor, the underwater environment, on marine creatures large and small.

Sending infrasound out across and thru the water, sickening residents, visitors, livestock, pets and wildlife, wreaking unfathomable harm to your marine creatures.

Global Warming Guru Jim Hansen cautions: 'Suggesting that renewables will let us phase rapidly off fossil fuels... is like believing in the Easter Bunny.' In Energy Solution Hinges on Better Technology, Bjorn Lomborg writes, "The belief that we already have the solutions is a delusion on a planetary scale...dangerous because it leads to us taking at face value promises and vows that have no chance of being enacted. And it is reckless because it stops us from focusing on what we need to do instead."

On Martha's Vineyard, the commercial fishermen were given an opportunity to speak from their experience about what the installation would do to the marine environment. Their testimony educated the Edgartown Conservation Commission and resulted in that board's denying the necessary permit for the proposed cable.

Learn more from "The Edgartown Fishermen's Meeting," a 5-hour passionate public conversation on wind, condensed to a more digestible 97 minutes: <https://www.youtube.com/watch?v=rGCAQdo7bvo&feature=youtu.be>

Tragically, MA is still being run by those who presume the right to supersede local authority. It's yet to be seen whether our state will act thoughtfully, honorably, constitutionally. How about Ohio?

The world is watching. And praying. God bless you. May you have the courage, strength and wisdom to do what's right for the greater good of all.

Sincerely,

Helen Schwiesow Parker, PhD, LCP

See also these news and info sites:

<http://wiseenergy.org/>  
[www.windaction.org](http://www.windaction.org)  
<http://www.wind-watch.org/>

See <http://windvigilance.com> for links to independent studies of IWT health impacts from 2010. [The news has only gotten worse.]

More info on why no matter the climate challenge,  
Industrial Wind is Not the Answer:

An Ill Wind Blowing? The New American

How Less Became More:  
Wind and Unintended Consequences in the Colorado Energy Market

Why Wind Won't Work by Jon Boone

Hidden Fuel Costs of Wind deGroot & lePair

Renewable and Nuclear Heresies  
Jesse Ausubel

Wind-Turbine Noise: What Audiologists  
Should Know in Audiology Today

The Secret Silent Wind Power Peril in Master Resource 2-7-2017

Science Deniers in the Wind Industry: The Human Health Consequences of  
Manipulated Measurements in Watts Up With That? 3-8-2017

## Letter from John Lipaj to OPSB: overwhelming negative consequences to Icebreaker

- SEP 20, 2018
- CLEVELAND LEEDCO, LETTERS TO THE DOE AND OPSB RE LEEDCO



*Yes, wind turbines create turbulence up to 20 miles. Imagine aircraft dangers.*

JOHN LIPAJ letter Asim Haque

**..."We ask you to recognize the overwhelming negative consequences....." Read the entire letter. This letter is accompanied by approximately 300 signatures of concerned persons.**

September 19, 2018  
Asim Z Haque, Chairman  
Public Utilities Commission of Ohio  
180 East Broad Street  
Columbus, OH 43215

Case Number: 16-1871-EL-BGN

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We are submitting for your consideration the attached petitions from concerned residents of Ohio and Michigan urging you in your September 24 hearing to order appropriate delays of any approvals for the proposed "Icebreaker" demonstration project in Lake Erie.

As Ohio's greatest natural resource, Lake Erie is a fragile body of water already facing a massive algae problem, a myriad of invasive species, and other threats to the ecosystem. The Lake Erie Energy Development Company (LEEDCo) has a stated goal of stimulating construction of hundreds more turbines in "wind farms" throughout Lake Erie and other Great Lakes after this first demonstration project. However, blighting our beautiful lakes with hundreds of industrial-size windmills is completely incompatible with the value, enjoyment and protection of these treasured waters that are held in the public trust by the states of Ohio and Michigan.

Much has already been written and published about this proposal. The damage to the environment, ranging from spreading carcinogens trapped in the lake bottom into the drinking water of millions to killing birds protected under the Migratory Bird Treaty, will be the unacceptable result.

Moreover, recognizing the increased costs of building and maintaining turbines in the waters of the Great Lakes make it abundantly clear the claimed economic benefits of such wind power simply cannot be substantiated. A study of such offshore installations in countries like Great Britain and Germany document their electric rates to be among the highest in the world.

Further, we foresee such turbine installations will become navigational hazards and will trigger large “security zones” around any wind farm, something LEEDCo has never addressed. Prohibiting thousands of recreational boating and fishing families access to large areas of water that is held in the public trust should be unacceptable to every member of the OPSB.

Therefore, we ask you to recognize the overwhelming negative consequences of “Icebreaker.” Further, that you uphold a duty to protect the health and aesthetics of Lake Erie and, thus, the quality of life for those who live, work and recreate on or near Ohio and Michigan’s most important natural resource. We urgently request this Board put the value of Lake Erie above any need to jeopardize our waters, and disapprove the “Icebreaker” project.

Sincerely,

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John C. Lipaj  
Board Member  
Lake Erie Foundation  
Westlake, OH

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Bryan Ralston  
President  
Lake Erie Marine Trades Association  
Westlake, OH

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David Strang  
President  
[saveourbeautifullake.org](http://saveourbeautifullake.org)  
Rocky River, OH

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Thomas C. Sullivan, Jr.  
Officer  
[nolakeeriewindfarm.org](http://nolakeeriewindfarm.org)  
Bay Village, OH

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Jim Herold  
Trustee  
Edgewater Yacht Club  
Cleveland, OH

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Nicki Polan  
Executive Director  
Michigan Boating Industries Association  
Livonia, MI



1875 Eye Street, NW • 5<sup>th</sup> Floor  
Washington, DC 20006

Telephone 202-429-2737

COMMITTEE FOR A CONSTRUCTIVE TOMORROW

October 20, 2016

Mr. Roak Parker  
U.S. Department of Energy  
DOE Golden Field Office  
15013 Denver West Parkway  
Golden CO 80401

Email: [ProjectIcebreaker@ee.DOE.gov](mailto:ProjectIcebreaker@ee.DOE.gov)

cc Mr. Matt Butler, Ohio Power Siting Board: [ContactOPSB@puc.state.oh.us](mailto:ContactOPSB@puc.state.oh.us)

cc Governor John Kasich: [John.Kasich@Governor.Ohio.gov](mailto:John.Kasich@Governor.Ohio.gov)

Dear Mr. Parker and DOE Golden Field Office:

The Committee For A Constructive Tomorrow (CFACT or the Committee) appreciates this opportunity to submit comments to the Department of Energy on its “Icebreaker” wind energy project in Lake Erie.

With headquarters in Washington, DC, the Committee is a 501(c)(3) national and international environmental and educational organization dedicated to protecting both wildlife and ecological values *and* the needs and aspirations of people, families and communities. We are deeply concerned about this project, and about additional offshore wind turbine developments that are being planned for Lake Erie and other lake and ocean waters in the United States.

Having reviewed these proposals and the impacts from other wind energy developments in the USA and elsewhere, CFACT is convinced that the Lake Erie project and its successors will adversely affect wildlife and wildlife habitats that we, our members and supporters, our families, and the people we represent hold dear. We also conclude that the expensive, subsidized, intermittent, unreliable and uncontrollably variable electricity generated by these turbines will adversely impact the budgets, jobs, living standards, health and welfare of these people and other Americans, especially poor, minority and working class families.

Nothing we have seen thus far persuades us that the Lake Erie Energy Development Company (LEEDCo) has taken, or will be able to take, steps that are necessary to protect the sensitive lake, wetland and onshore environments and wildlife in Lake Erie, especially as the project expands. Those areas include nesting sites, foraging areas, migration routes and other ecological spaces on which numerous bird and bat species depend – including eagles and other raptors, wading birds, geese, swans, ducks, song birds, silverhaired and other bats, and other valuable, rare, threatened and endangered species.

Indeed, from CFACT’s perspective, the Icebreaker and subsequent wind energy projects present a far more serious threat to the environmental values, health, welfare and pursuit of happiness, justice and civil rights progress of the people we represent – and of all Americans – than do any reasonably foreseeable manmade climate and weather changes that are being used to justify these projects.

Our detailed analysis follows.



## CFACT comments on the “Icebreaker” wind energy project

### Impacts on wildlife

The August 20, [2015 LEEDCo “update”](#) states that the Lake Erie Icebreaker Wind Project will start off “relatively small, with just six 3-MW Siemens direct-drive turbines” in 55-60 feet of water. However, it goes on to say, “eventually U.S. offshore areas could produce a staggering 4,000 GW of electricity.”

That eventual power generation is 4,000,000 MW – which would require from **500,000 to 1,250,000** wind turbines generating 3.2 to 8.0 MW of name plate potential power, intermittently, many days of the year. Each turbine will rise up some **420-650 feet** above lake and ocean waters, and each of these behemoths’ enormous blades will sweep across some 100,000 square feet (**2.5 acres**) of air space.

Lake Erie Energy Development Company VP of Operations David Karpinski has said the wind consortium’s “vision is 5,000 megawatts over the next 10 to 15 years,” just in Lake Erie. If those turbines generate 3.2 MW each, that would require installing nearly **1,600** wind turbines in the US portions of the lake; even with 8.0 MW turbines, this proposal would require **625** truly enormous turbines.

Where the other 3,995,000 megawatts will be generated, no one knows.

Eagles, hawks, ospreys, other birds and bats won’t have a chance. These magnificent flying creatures have nested, bred and foraged in the Lake Erie area for centuries. Millions of birds and bats migrate across the lake twice a year. As the “relatively small” project expands to 100, 500, 625 or 1,600 huge turbines in sensitive areas all over the lake, the impacts on birds and bats will grow exponentially.

They will be attracted to the offshore turbines by fish and insect prey. In fact, studies have found that [bats are attracted](#) to turbines as far as 9 miles offshore, and numerous bird species spend extensive time offshore. Focused on feeding and other activities, they will not realize that the enormous blades are moving at 180 mph at their tips, and so will be knocked from the sky, dead or severely injured. Their bodies and body parts will sink from sight or be eaten by scavengers.

That convenient disappearance of hundreds or thousands of birds and bats around each offshore turbine will make it easier for wind energy operators and proponents to claim the carnage is minuscule and “acceptable.” Moreover, studies by wildlife biologists like [Jim Wiegand have documented](#) the clever and devious methods that the wind industry has routinely been permitted to use to minimize dead and injured bird and bat counts, such as:

- \* looking only 50 meters from the turbine towers, even though the blades cover far more distance and send victims flying hundreds of feet beyond the tiny search areas;
- \* looking only every few weeks, ensuring that most victims are devoured by scavengers and never found;
- \* actually having workers remove bird and bat carcasses before official inventory teams are allowed to enter the areas to count whatever minimal remains might still be left to tally.

That means the “official” counts are a tiny fraction of the actual death toll. It means the accounting is inaccurate at best, and willfully dishonest at worst. It means wind energy proponents can continue to make false claims that wind turbines are an “environment-friendly” alternative to “polluting” coal and gas-fired generators, whose actual emissions today are primarily plant-fertilizing carbon dioxide. It means the wind industry can avoid both public relations problems and the legal, regulatory and economic consequences of maiming and exterminating protected wildlife.

No other industry has ever been or would ever be allowed to operate under such regulatory blindness – not only to kill countless birds and bats, but to manipulate search methods and data to make it appear that the associated ecological impacts are far less than they actually are. Any proposed oil, gas, coal or nuclear power generation project, timber cutting activity, manufacturing facility or other enterprise would be

scrutinized under powerful searchlights – and vetoed for causing a tiny fraction of the wildlife impacts that the steady expansion of enormous wind turbines will have on Lake Erie ecosystems.

Moreover, as the six demonstration turbines associated with Icebreaker increase to 625 or even 1,600 turbines, to reach wind developers’ “vision” of 5,000 megawatts by 2025 or 2031 in Lake Erie, those turbines will encroach on and severely impact the habitats and wildlife around the West Sister, Rattlesnake, Bass, Kelly and other Islands off Lucas and Ontario Counties, Ohio. The wildlife slaughter will reach intolerable and unsustainable levels.

The Massachusetts Audubon Society had estimated that even a relatively small wind project off Cape Cod would kill about 6,000 marine birds each year, some of them on the endangered list. Audubon finally agreed to support the plan after the promoter agreed to pay millions for monitoring the marine birds’ interactions with Cape Wind Project turbines. But many have questioned whether this is this sound science – or science and approval associated with a mutually lucrative corporate-Audubon arrangement.

For further background on wildlife considerations, and in support of our concerns about expanding Lake Erie wind turbine projects, CFACT hereby references, incorporates and supports official comments and other materials on the Icebreaker Project by the North American Platform Against Wind Power (NA-PAW) and Hawk Migration Association of North America:

<http://www.NA-PAW.org/comments-Icebreaker.php>

<https://www.MasterResource.org/offshore/LEEDCo-Lake-Erie-protest-letter/>

<http://GreatLakesWindTruth.org/cleveland-leedco/Hawk-Migration-Association-Of-North-America-puts-in-a-solid-case-against-wind-turbines-in-Lake-Erie/>

When it comes to wind power, climate change and renewable energy agendas clearly drive the science and regulations, rather than being guided and determined by honest science and evenly applied rules.

### **Weather, repair, and boat and air traffic considerations**

While weather, wave and current conditions in Lake Erie will rarely be as severe as in ocean areas, and the corrosive effects of salt water will be far lower, wind turbine operators will still have to deal with major winter ice and mechanical problems and breakdowns.

Modern 8-megawatt turbines are 200 meters (656 feet) above the waves. Their blades weigh 35 tons apiece, and the nacelles are some 390 tons each. Installing, maintaining, disassembling and replacing these components must be done using large jack-up platforms, which is tricky and extremely expensive even in calm waters, and downright dangerous when winds and waves start kicking up. Many accidents have been reported, some fatal.

Furthermore, as the number of wind turbines increases in Lake Erie – the threat to commercial shipping traffic, fishing boats, pleasure craft and aircraft will increase significantly, especially during inclement weather. The danger of boats colliding with monopods will reach dangerous levels during fog and storms, and the likelihood of aircraft hitting turbine towers or blades will soar in those weather systems and at night. Again, six demonstration turbines is one thing; 625 to 1,600 is a totally different kettle of fish.

### **Asserted climate change benefits are illusory**

The blanket exemption from wildlife and endangered species laws is based on questionable assertions that wind turbines reduce atmospheric carbon dioxide levels that allegedly cause global warming, climate change, extreme weather events and an amazing number of dog, people, [Italian pasta](#), [prostitution](#) and other exaggerated or imaginary problems – along with other supposed risks that exist only in computer models whose forecasts and scenarios bear no resemblance to Real World conditions or events.

Our planet’s climate has changed regularly throughout earth and human history, in response to powerful, interconnected *natural* forces that humans cannot control. There is no evidence in the climate or weather

record that government will ever be able to control climate and weather by limiting the amount of plant-fertilizing carbon dioxide that humans emit into the atmosphere.

Indeed, contrary to claims about carbon dioxide being a “dangerous pollutant,” more CO<sub>2</sub> in Earth’s atmosphere will continue to *improve* crop, forest and grassland growth, even during prolonged droughts and cold periods. This is already occurring, as demonstrated by the increased “greening” of the Sahel and many other regions, improved forest and crop growth across our planet, and other phenomena recorded by the Center for the Study of Carbon Dioxide and Global Change and many other researchers, and summarized in Paul Driessen’s book [\*Miracle Molecule: Carbon dioxide, gas of life\*](#).

UK science writer Matt Ridley’s [recent presentation](#) to the Royal Society of London likewise provides fascinating information about how much our Earth has “greened” over the past 30 years, in response to increasing atmospheric CO<sub>2</sub> levels. And CFACT’s highly acclaimed film [Climate Hustle](#) vividly presents the science and lack of scientific consensus about “dangerous manmade climate change.”

Hurricanes and tornadoes, storms, droughts, polar ice and sea levels are all within the realm of historic experience. There is nothing “manmade” or “unprecedented” about them, nor is there any evidence that CO<sub>2</sub> is “acidifying” oceans that are and will remain firmly alkaline. There is certainly nothing to justify shutting down our carbon-based energy system, dramatically increasing energy costs, radically transforming our economy, destroying millions of jobs, and impairing human health and welfare.

In fact, contrary to multiple computer model predictions, average global temperatures have risen by barely a couple hundredths of a degree over the past 19 years. Climate models consistently misrepresent past temperature and climate trends and predict much greater warming than Earth has actually experienced. That makes the models, and the assumptions behind them, invalid.

Meanwhile, it has now been *eleven years* since a category 3-5 hurricane last made landfall in the United States. (Hurricane Wilma in 2005; Sandy hit as a Category 2.) That’s a record hurricane hiatus, with the longest previous period with no landfalling Category 3-5 storm being nine years, 1860-1869.

Seas are rising at barely seven inches a century. Droughts and “extreme weather events” are less frequent, severe and long-lasting than during the twentieth century. Polar ice is again freezing at or above historical rates in the Arctic and Greenland, and at a record pace in Antarctica. Polar bear numbers are at record highs, having risen from 5,000 worldwide 65 years ago to more than 25,000 today.

### **Adverse impacts on human health and welfare**

And yet Americans are told we must subsidize and install tens of thousands of new wind turbines – which produce relatively little power, for the land and raw materials required to build them and transmit their electricity – at enormous expense for families, businesses, hospitals, factories and other energy consumers, because their electricity costs far more than what is generated by coal or natural gas.

In Europe the exorbitant price of wind and solar electricity is already forcing entire industries to close down, including aluminum, ceramics and steel – with minimal reductions in Europe’s carbon dioxide emissions ... and none worldwide, since the shuttered industries and jobs simply move to other countries where emission controls and electricity generation efficiencies are much lower, or nonexistent.

Those rising electricity rates will affect everything Americans make, grow, ship, eat and do – just as they have in Europe. They will impair people’s livelihoods, living standards and life spans.

Poor, minority and working class families will have to find hundreds of extra dollars per year to pay these rising energy bills, even as more Americans end up living below the official poverty line and median family incomes continue to decline, as they have by more than \$3,000 per year since 2008.

Small businesses will have to find thousands of dollars every year, just to keep the heat and lights on, without laying more workers off. Factories, malls, school districts, hospitals and cities will have to pay *millions* more, while trying to pay pensions and other rising costs.

Those impacts are unsustainable. They cannot possibly be absorbed by the Ohio or U.S. economy.

To cite just one example, the August 20, 2015 LEEDCo “update” says the wind industry’s “target cost” is 10 cents per kilowatt-hour. However, Ohio families and businesses were *already paying 9.9 cents per kWh in delivered costs* for all combined consumer sectors in July 2016 (EIA Electric Power Monthly report), for power generated by far lower cost coal, gas and nuclear power plants. Ten cents per kWh is thus an absurdly low, pie-in-the-sky figure, designed to influence public opinion and decision makers.

A far more likely price tag for electricity from these Lake Erie wind turbines is the 14.5 cents per kWh cited by LEEDCo, based on a “recent electric bill from AEP” – or even the 16 to 17 cents that families and businesses already pay in New York and Connecticut, respectively. Let’s apply that to one sector.

The average U.S. hospital uses 31 kilowatt-hours of electricity per square foot per year. For a facility like Ohio State University’s 1.1-million-square-foot James Cancer Center and Solove Research Institute in Columbus, that translates into **\$3,376,000 per year** at 9.9 cents per kWh – versus **\$4,945,000** per year at 14.5 cents/kWh, and **\$5,797,000** annually at 17 cents/kWh.

*That is a \$1.6 million to \$2.4 million difference* – a massive budgetary shortfall. The only ways it can be made up is by laying off staff, reducing patient care, increasing patient costs, and/or raising taxes.

Applied across the board, to every hospital, school district, small business, internet service provider, factory, family and other electricity user in Ohio, the results would be devastating. Poor, minority and blue collar families would be hardest hit, as they already pay a much larger, disproportionate share of their incomes for heating, air conditioning, lighting, refrigeration and other electricity needs.

That is manifestly unfair. It is the epitome of environmental injustice.

Reducing access to affordable, reliable electricity will further exacerbate our nation’s untenable unemployment and welfare situation. More than 94 million Americans are not working, and the labor force participation rate is the lowest in 38 years, with barely 62% of the U.S. population either holding a job or actively seeking one. Nearly 8.5 million Americans do not have jobs, some 40% have given up even looking, and more than 6 million are involuntarily working one or more jobs part-time – at lower wages and with fewer or no benefits – because they cannot find full-time positions. Millions of families are living on the edge.

More than 120,000 primary and secondary jobs have been lost in America’s coal-producing states since 2008, the majority of them because of onerous regulations. Dozens of coal mining companies have filed for bankruptcy, and the market value of the remaining companies has plummeted. Anger, frustration and despair in poor, minority and blue-collar communities are understandably rising.

Increasing electricity costs is a major factor in all of this, and major forced transitions to wind-based electricity will only make the situation worse.

Put bluntly, this wind power plan attempts to protect people from conjectural, exaggerated and illusory climate risks years or decades from now, by increasing the economic problems, anxiety, and health and welfare woes they already face today. That is intolerable.

### **Actions by other countries make U.S. sacrifices meaningless**

As Secretary of State John Kerry admitted in last fall in Paris: even if all the industrialized nations’ CO<sub>2</sub> emissions were reduced to zero, at great cost and sacrifice, “it wouldn’t be enough” to prevent alleged climate disasters, especially when more than 65% of the world’s “carbon pollution” now comes from the developing world. Moreover, any human control over weather and climate assumes carbon dioxide has replaced the powerful natural forces that have always controlled climate and weather. It has not.

Carbon-based energy still provides 80% of U.S. and 81% of world energy. It supports \$70 trillion per year in world GDP. Fossil fuels will supply 75-80% of global energy for decades to come, Energy Information Administration, International Energy Agency and other studies forecast.

Carbon-based energy is essential if we are to bring electricity to the 1.3 billion people who still do not have it, and end the rampant poverty and lung, intestinal and other diseases that kill millions of people in poor countries every year, because families are forced to burn wood and animal dung for heating and cooking – and because they do not have refrigeration to preserve their food and purify their water.

That is why thousands of coal-fired power plants are being built, under construction or in planning around the world. Developing countries are determined to lift their people out of poverty, disease and death – and will no longer tolerate being told they must refrain from using fossil fuels, because rich, already developed nations are now worried about climate change (after having used fossil fuels to resolve the disease, nutrition and other problems that threatened humanity for many millennia).

China now gets 75% of its electricity from coal. Its coal consumption declined slightly in 2014, as it turned slightly to natural gas, wind and solar, to reduce serious air quality problems. However, it plans to build 363 new coal-fired power plants, with many plants eventually outfitted or retrofitted with scrubbers and other equipment to reduce emissions of *real, health-impairing pollution*.

Meanwhile, Chinese banks and construction companies are financing and building hundreds of new [coal-fired generating units](#) in Indonesia, Pakistan, Turkey, Africa, Latin America and beyond – including nearly two dozen in the Balkan countries.

India will focus on “energy efficiency” and reduce its CO<sub>2</sub> “emission intensity” (per unit of growth), but *not* its overall emissions. It will also boost its reliance on wind and solar power for remote areas that will not be connected to the subcontinent’s growing electrical grid anytime soon. However, it plans to open a new coal mine every month and double its coal production and use by 2020.

India has also become “the center of the world’s oil demand growth,” says Citigroup. Its economy will likely [expand by 8% per year](#) through 2021, its domestic coal production even faster. Indeed, its coal demand for factories and electricity generation is rising so rapidly that India is financing a major coal mining operation in Mozambique, so that it can import that coal to the subcontinent.

Neither China nor India will even consider reducing GHG emissions until 2030, and even then it will be voluntary and dependent on how their economies are doing.

Pakistan is taking a similar path – as are Vietnam, the Philippines and other Southeast Asian nations. Even Japan plans to build 41 new coal-fired units over the next decade, partly to replace its nuclear power plants. Overall, says the International Energy Agency, Southeast Asia’s energy demand will soar 80% by 2040, and fossil fuels will provide 80% of the region’s total energy mix by that date.

Africa will pursue a similar route to lifting its people out of poverty. The continent has abundant oil, coal and natural gas – and it intends to burn those fuels, while utilizing wind and solar power in remote areas only until they can be connected to the continent’s slowly growing electrical grids.

All this fossil fuel use means the costly, painful, job-killing energy impacts associated with building a thousand wind turbines in Lake Erie – and hundreds of thousand nationwide – will have *no effect whatsoever* on atmospheric carbon dioxide levels, which will continue to climb, further greening the planet and spurring faster crop, forest, grassland and ocean phytoplankton growth.

Even if we assume once again that carbon dioxide has somehow replaced the powerful natural forces that have always driven Earth’s climate and weather, these wind turbines will do nothing to stabilize, prevent or roll back global warming, global cooling, other climate changes or extreme weather events.

In fact, in 2014, with about 268,000 industrial wind turbines worldwide, those monster machines achieved only 0.2% (two-tenths of one percent), essentially zero, of the world’s electrical needs.

### **Wind power is our least sustainable energy source**

The alter ego of climate change in these renewable energy debates is sustainability: the argument that wind and other “renewable” energies are sustainable, whereas oil, gas and coal are not.

This assertion may have had some merit a few years ago, when it could plausibly be claimed that the world was running out of fossil fuels. However, it is now clear that several centuries of economically recoverable coal remain to be tapped – and the horizontal drilling and hydraulic fracturing (fracking) process ensures that at least one or two centuries of oil and natural gas could be recovered from shale deposits around the world. “Imminent resource depletion” is no longer a plausible or valid argument.

Indeed, fracking provides abundant natural gas that can fuel power plants, lower carbon dioxide emissions and keep electricity prices low. Heavy reliance on wind energy (offshore and onshore) would raise electricity prices, while doing nothing to reduce CO<sub>2</sub> emissions, since backup generators running on standby but ramping up repeatedly all day long run inefficiently and emit more carbon dioxide.

However, there is another aspect to sustainability claims, and when common environmental guidelines, policies and regulations are applied, it is clear that *wind energy is our least sustainable energy source*.

**Land.** Wind turbine installations impact vast amounts of habitat and crop land, and offshore wind turbines impact vast stretches of lake or ocean – far more than traditional power plants.

Arizona’s Palo Verde nuclear plant generates 3,750 megawatts of electricity from a 4,000-acre site. The 600-MW John Turk ultra-supercritical coal-fired power plant in Arkansas covers a small portion of 2,900 acres; gas-fired units like Calpine’s 560-MW Fox Energy Center in Wisconsin require several hundred acres. All generate reliable power 90-95% of the year.

By contrast, the 600-MW Fowler Ridge wind installation (355 turbines) spans 50,000 acres of farm country along Indiana’s I-65 corridor. The 782-MW Roscoe project in Texas (627 turbines) sprawls across 100,000 acres. Oregon’s Shepherds Flat project (338 gigantic 2.5 MW turbines) covers nearly 80,000 wildlife and scenic acres along the Columbia River Gorge, for a “rated capacity” of 845 MW.

The 625 to 1,600 turbines planned for Lake Erie will impact hundreds of thousands of acres, planting bird and bat killing machines across miles and miles of lake habitat – while future Canadian wind farms on the Ontario side of the lake will affect hundreds of thousands more acres, and millions more birds and bats.

**Raw materials.** Wind installations require enormous quantities of steel, copper, rare earth metals, fiberglass, concrete and other materials for the turbines, towers and bases.

A single 1.7 MW wind turbine, like the 315 Fowler Ridge units, involves some 365 tons of materials for the turbine assembly and tower, plus nearly 1100 tons of concrete and rebar for the foundation. Grand total for the entire Fowler wind installation: some 515,000 tons; for Roscoe, 752,000 tons; for Shepherds Flat, 575,000 tons. Offshore installations of the kind proposed for Lake Erie would likely require twice the materials needed for their onshore counterparts.

To all that must be added millions of tons of materials for thousands of miles of new transmission lines – and still more for mostly gas-fired generators to back up every megawatt of wind power and generate electricity the 17 to 20 hours of each average day that the wind does not blow.

**Money.** Taxpayers and consumers must provide perpetual subsidies to prop up wind projects, which cannot survive without steady infusions of cash via feed-in tariffs, tax breaks and direct payments.

Transmission lines cost \$1.0 million to \$2.5 million per mile. Direct federal wind energy subsidies to help cover this totaled \$5 billion in FY 2010, according to Energy Department data; state support added billions more, and still more billions were added to consumers’ electric bills. The Other People’s Money well is running dry, and voters and consumers are getting fed up with cash-for-cronies wind schemes.

**Energy.** It is extremely energy-intensive to mine, quarry, drill, mill, refine, smelt and manufacture the metals, concrete, fiberglass, resins, turbines and heavy equipment to do all of the above. Transporting, installing and repairing turbines, towers, backups and transmission lines requires still more energy – *real* energy: abundant, reliable, affordable ... not what comes from wind turbines.



Some analysts have said it requires more energy to manufacture, haul and install these Cuisinarts of the air and their transmission systems than they will generate in their lifetimes. However, no cradle-to-grave analysis has ever been conducted, for the energy inputs or pollution outputs.

**Health.** Environmentalists regularly make scary but wildly speculative claims about health dangers from hydraulic fracturing. However, they and wind energy companies and promoters ignore and dismiss a growing body of evidence that steady low frequency noise from wind turbines causes significant human health problems, interferes with [whale and porpoise](#) navigational and food-finding systems, and affects other wildlife species.

Sudden air pressure changes from rapidly moving turbine blades can cause bird and bat lungs to collapse. In addition, serious lung, heart, cancer and other problems have been documented from rare earth mining, smelting and manufacturing in China and Mongolia, under those countries' far less rigorous health, workplace safety and environmental regulations.

To date, however, very few health or environmental assessments have been required or conducted prior to permit approval, even for major wind turbine installations, much less the grand "visions."

**Environment.** Raptors, bats and other beautiful flying creatures continue to be sliced and diced by wind turbines. However, government regulators continue to turn a blind eye to the slaughter, and the actual toll is carefully hidden by wind operators, who treat the data as trade secrets and refuse to allow independent investigators to conduct proper studies of bird and bat mortality. Furthermore, wind turbines are increasingly being installed in sensitive wildlife habitat areas, like Lake Erie and onshore areas like Shepherds Flat, as they are often the best remaining areas for relatively abundant, consistent wind.

**Jobs.** The myth of "green renewable energy jobs" is hitting the brick wall of reality. While turbines installed and maintained in the USA and EU create some jobs, many of them short-term, the far more numerous mining and manufacturing jobs are in China, where they are hardly "green" or "healthy." Moreover, as Spanish and Scottish analysts have documented, the expensive intermittent electricity generated by wind turbines kills 2.2 to 3.7 traditional jobs for every "eco-friendly" wind job created.

**Electricity costs and reliability.** Even huge subsidies cannot cure wind power's biggest defects: its electricity costs far more than coal, gas or nuclear alternatives – and its intermittent nature wreaks havoc on power grids and consumers. The problem is worst on hot summer afternoons, when demand is highest and breezes are minimal. Unable to compete against cheap Chinese and Indian electricity and labor, energy-intensive industries increasingly face the prospect of sending operations and jobs overseas.

All of this is simply and completely unsustainable.

## **Conclusion**

Simply put, the danger is *not* climate change – which will always be with us. The real, immediate danger is renewable energy programs implemented in the name of controlling Earth's perpetually fickle climate.

The 5,000 megawatt wind energy system being discussed for Lake Erie – and even more so, the absurdly ambitious 4,000,000 megawatt wind energy "vision" for U.S. lake and ocean areas – will harm human health and welfare, job creation and preservation, wildlife and environmental quality, while doing nothing to reduce or prevent climate change: manmade, "dangerous" or otherwise.

The Lake Erie and other plans for offshore wind energy facilities need to be abandoned.

Respectfully submitted,

*Craig Rucker*

Craig Rucker

Executive Director, Committee For A Constructive Tomorrow

October 7, 2017

Attention Mr. Roak Parker  
DOE Golden Field Office NEPA Division  
15013 Denver West Parkway  
Golden CO 80401  
RE: EA 2045, Icebreaker Windpower, Inc.  
Email: [ProjectIcebreaker@ee.doe.gov](mailto:ProjectIcebreaker@ee.doe.gov)

Attention: Mr. Joseph W. Krawczyk  
Buffalo District U.S. Army Corps of Engineers  
Regulatory Branch  
1776 Niagara Street  
Buffalo, NY 14207

Re: Project Number 2010-00223, Icebreaker Windpower, Inc.  
Email: [joseph.w.krawczyk@usace.army.mil](mailto:joseph.w.krawczyk@usace.army.mil)

**RE: Icebreaker 16-1871-EL-BGN (OPSB)**

Dear Mr. Parker and Mr. Krawczyk,

I am a concerned citizen living on the shoreline of the Great Lakes in the Canadian province of Ontario. Over the past 10 years I have watched helplessly as numerous wind projects have been erected on the critical North American migratory path without the Canadian or US governments objecting!

This project was denied in 2014 because there were at least 14 omissions and deficiencies in the application. How can it now be back on the table? Why the secrecy? The public on both sides of the border need to be kept informed.

It does not make any sense to "kill the environment to save the environment".



Each individual US or Canadian project is assessed in isolation. Both the US and Canadian governments lack a “big picture” perspective on the North American wind turbine map. There seems to be no concern for the migratory paths that exist for birds, bats, butterflies and dragonflies. Some are endangered or threatened species and ALL eat mosquitoes and other bugs that could potentially carry disease harmful to humans.

The last thing we should want to do is to kill or greatly reduce the natural predators who keep such populations to a minimum, so that we have to resort to DDT to do the job!

There is a North America Migratory Flyway protection legislation in the form of the Migratory Bird Treaty Act (MBTA) designed to force governments to protect such migratory paths - but it seems to now be ignored and not enforced.

Pollution of the Great Lakes for such wind projects is also a HUGE issue. The world needs to protect such water sources and improve them, not add to the pollution. Cement and oil used in operation of such wind turbines will certainly add to the pollution for the life of the turbine installation. There are many documented examples of oil leaks and spills during maintenance and operation of these “green renewable energy” structures.

Sound carries great distances across water – both audible and infrasound. Setbacks from land should be seriously considered both in terms of the migration patterns, shorebird gathering and nesting areas, and human residences.

Please do not allow ANY wind turbines to be constructed in ANY of the Great Lakes. If you do, it will be like the corporations getting a foothold in the closed door - it won't be long before they force it open. As the proponent suggests by its very name “Icebreaker” ...once they get their foot in the door they will expand or others will jump on the band wagon.

The human species cannot afford to ruin the Great Lakes now or in the future.

Bill Gates is against wind turbines. What does he know that you do not? Please find out.

Please take the morally responsible action and deny all industrial wind projects from ever being placed in any of the Great Lakes.

Thank you for your consideration.

Sincerely

Andrea Cross  
4615 South Shore Rd  
Stella, Ontario K0H 2S0  
Canada

c.c. Mr. Matt Butler OPSB E: [contactOPSB@puco.ohio.gov](mailto:contactOPSB@puco.ohio.gov)  
Please place these comments in your OPSB file

Dear Ms. Mertz and Mr. Gray,

RE: ICEBREAKER WINDPOWER INC. OPSB CASE #16-1871-EL-BGN

We are writing with respect to a massive wind project consisting of firstly six then thousands of industrial wind turbines planned to be stuck into Lake Erie, 6-8 miles offshore of Cleveland, which as you know, is just a relatively short trip across the lake for all sorts of birds, Tundra Swans, raptors, Monarch butterflies and many other winged creatures from Ontario, Canada, where we reside.

To be blunt, and with respect, this project represents sheer insanity given everything we know (or people ought to know) by now about the utter failure of the wind power industry around the world to deliver what it promises. Consider these main indisputable facts:

- Wind turbines cannot exist and are not economically feasible without taxpayer subsidies.
- Wind turbines contribute next to no electricity, are obviously and by nature unreliable, requiring standby back-up of the very fossil-fuel energy sources they are supposedly trying to replace.
- Wind turbines are a thousand times more environmentally destructive than any good it is fake-green-claimed they do for the non-existent problem of supposedly runaway manmade global warming.
- Wind turbines kill birds and bats on an unsustainable, industrial scale.

In short, there should be a world-wide moratorium on industrial wind turbines, both in and out of the water. Even if they had any redeeming value, which they most emphatically do not, situating many thousands of them in the waters of Lake Erie would be to cause willful slaughter of millions of birds and bats as well as inconceivable, perhaps irreversible degradation of the aquatic environment.

We've been concerned for years about the useless wind turbines defiling the pastoral Ontario landscape and the beautiful shorelines along the Great Lakes, and especially those forced into designated Important Bird Areas such as at Grand Bend, Ontario on Lake Huron.

Do the environmentally and responsibly right thing by rejecting this project. Don't do it. Don't cave in to the international climate industrial complex and its dishonesties and corruption - just don't.

Your friendly Canadian neighbours,

Carmen von Richthofen, Toronto, Ontario

<https://wolfhill.blog>

<https://vimeo.com/channels/protecttundraswans/>

# Are Wind Turbines about to be on Lake Erie's Horizon?

By John Lipaj  
Board Member, The Lake Erie Foundation

Icebreaker is the first offshore wind turbine facility proposed for the freshwater Great Lakes. The pilot project is to consist of six (6) 480' high wind turbines, located 8 miles northwest of Cleveland, which is 5 to 6 miles from the Lakewood & Rocky River shorelines.

Icebreaker was started by LEEDCO, a Cleveland based non-profit that has agreed to sell their assets to Fred Olsen of Norway, a large multinational corporation. The assets that Fred Olsen purchased include the submerged land lease, giving them the "rights" to the land in the Icebreaker project area under Lake Erie for 50 years.

Fred Olsen will also receive about \$50 million in U.S. taxpayer subsidies through 2 U.S. Department of Energy grants, U.S. Production Tax Credits, U.S. Investment Tax Credits and they've been granted a Payment In Lieu of Taxes (PILOT) tax break by Cuyahoga County.

Cuyahoga County and Cleveland Public Power can currently purchase electricity from the Grid for \$34 per megawatt hour, but have agreed to pay 500% more to purchase Icebreaker's power at "\$181 per megawatt hour plus annual increases".

LEEDCO executives have stated during public presentations that Icebreaker "has no intent to build any more than six wind turbines". They have also stated in their application to the Ohio Power Siting Board (OPSB), "the Applicant (Icebreaker) has indicated that it has no plans for further expansion at this point of interconnection."

Yet the project's backers do have bigger plans for Lake Erie beyond Icebreaker's initial 6 turbines. Dave Karpinski, LEEDCO VP of Operations said, "Our vision is 5,000 megawatts over the next 10 to 15 years," Doing the math for how much each turbine can generate, that would require installing about 1,450 wind turbines in Lake Erie.

## *Why Offshore Wind Power in the Great Lakes?*

LEEDCO points out that "winds blow stronger and more consistently over water than over land, and better match when energy demands are highest." Norm Schultz President Emeritus of the Lake Erie Marine Trades Association (LEMTA) disagrees, "Northeast Ohio's highest electric demand is when air conditioners are running in July and August.

"Anyone who has spent time on Lake Erie knows that those are same two months of the year when the wind is typically the weakest." "The turbines cannot match energy demand for that reason alone." Schultz also points out that the average windspeed on Lake Erie is only about 15% higher on Lake Erie than onshore in Northwestern Ohio. "Why would we spend 250% more to pick up an incremental increase in wind speed of only 15%?" Our tax dollars could be better spent placing renewables like wind and solar in parts of the country where we'll get more carbon reduction per dollar spent" added Shultz.

Icebreaker officials state on their website that "Wind power is a clean, abundant and renewable energy source", "Unlike nuclear power, wind produces no waste products or risks of tragic accidents."

Tom Sullivan founder of the [NOLAKEERIEWINDFARM.ORG](http://NOLAKEERIEWINDFARM.ORG) has a different perspective, “Wind turbines operate on average, only about a third of the time. They can’t produce power if the wind speed is too weak or too strong. They’re prone to mechanical failures which is why you see so many not turning-even on windy days.”

“The rest of the time, traditional power plants need to be cycled up to provide power. Despite wind developer promises, there are plenty of examples of wind turbines leaking oil and catching fire.” Said Sullivan. “and as for “no waste products”, the fiberglass blades can’t be recycled-so they often wind up in landfills in underdeveloped countries”

Icebreaker officials have stated that “We can build an industry and supply chain in Northeast Ohio that will create 8,000 new good paying jobs and pump nearly \$14 Billion into our economy by 2030.” This would require building a massive industrial-scale wind facility on Lake Erie consisting of around 1,500 turbines.

Sherri Lange, a founder of Great Lakes Wind Truth claims that, “Higher energy costs from wind power have resulted in manufacturing job losses here in Ontario.” “The Ontario government told us that the Green Energy Act (GEA) of 2009 would create 50,000 new jobs and establish Ontario as the center of renewable energy manufacturing in North America.”

“But the fact is that Ontario has lost 300,000 jobs since the Green Energy Act was enacted,” said Lange. “Many manufacturers have left to escape energy costs which have tripled due to the higher cost of wind power.” Ontario has now imposed a moratorium on offshore wind development in any of the Great Lakes.

Michelle Burke, President of LEMTA points out that the 9 permanent jobs that Icebreaker may create, need to be weighed against the losses of existing jobs. Lake Erie tourism, including lodging, currently supports 124,000 existing jobs and spending of \$14 Billion per year. A study by North Carolina State University showed that over half of vacationers would not rent a vacation home if offshore wind turbines were in view.

Burke and members of her group have concluded that building wind turbines in Lake Erie will have a devastating effect on Lake Erie tourism. “The 9 permanent jobs that may result from this project, will never make up for the losses to real, currently existing tourism jobs.” Said Burke.

The Nature Conservancy recommends not building turbines in the Great Lakes, because offshore construction disturbances attract predator fish to fragile fish spawning grounds. Those predator fish feed on hatchling, reducing the numbers of native fish such as Walleye and Perch.

The U.S. Fish & Wildlife Service, the Nature Conservancy and the Black Swamp Bird Observatory recommend siting wind turbines at least 5 miles away from the open waters of the Great Lakes, to avoid killing birds that migrate across the Great Lakes by the millions.

Many see similarities between claims made by LEEDCO and New Jersey’s Nautilus Offshore Wind, which was touted by its developers as “a pilot project to develop the infrastructure and skilled workforce to establish New Jersey as a leader in the offshore wind industry”.

But the State found the project was deemed too costly and unable to demonstrate it would a *net economic benefit* to the customers who would pay for it. The State found any supposed benefits claimed by the developer to be too “nebulous”.

“Simply stated, the Nautilus proposal contains a price too high and benefits too tentative,” said New Jersey Public Utilities President Joseph Fiordaliso. “The state law promoting offshore wind requires developers to show a net economic benefit to ratepayers, who will ultimately foot the cost of the electricity generated by the wind farms.”

David Strang, a Cleveland area resident believes that the State of Ohio must reach the same conclusion about Icebreaker. “New Jersey set precedent when they stopped the Nautilus Offshore Project because the supposed benefits were too nebulous and they found no net economic benefit to taxpayers.”

“Ohio’s citizens will not benefit by the construction of Icebreaker,” said Strang. “Fred Olsen, a foreign billionaire, will benefit, by receiving \$50 million in US taxpayer subsidies and multiple tax breaks. His company will then sell the electricity back to Cleveland Public Power and Cuyahoga County for a price 500% higher than they could be paying.”

“Governor DeWine says that protecting Lake Erie is one of his top priorities.” Strang added, “He can prove it by demanding the completion of a thorough, independent, Environmental Impact Statement before allowing the Ohio Power Siting Board to bring Icebreaker to a vote.”

Strang added that anyone who opposes the construction of wind turbines in Lake Erie can help by signing the petition to Governor DeWine which is on [SAVEOURBEAUTIFULLAKE.ORG](http://SAVEOURBEAUTIFULLAKE.ORG).



"Formerly known as LEEDCo project, Icebreaker comes under the jurisdiction of the [Ohio Power Siting Board](#) (OPSB). Four years ago, the OPSB identified some 14 omissions, errors, and deficiencies in the Lake Erie application. We opponents of the project cannot locate any remission or correction of those deficiencies."

*PLEASE NOTE references to THE LETTER OF 2014 FROM THEN CHAIR TODD SNITCHLER, INDICATING A LIST OF OMISSIONS, ERRORS AND LACK OF SUBSTANTIAL AND USEFUL SURVEYS ETC.*

*Please also note that deficiencies and omissions, and ERRORS, were noted by ODNR and USFWS.*



# Isselhard: Letter to Mary Mertz, ODNR

- MAY 18, 2019



May 10, 2019

Mary Mertz, Director

Ohio Dept. of Natural Resources

2045 Morse Road  
Columbus, OH  
43229-6693

Dear Director Mertz,

RE: Icebreaker offshore wind project in Lake Erie, the Public Trust Doctrine and the Ohio Dept. of Natural Resources

Congratulations upon being appointed as Director of the Ohio Department of Natural Resources (ODNR) by Ohio Governor Mike DeWine.

Im contacting you regarding the Icebreaker offshore wind project.

I realize you are newly appointed and are likely learning all that's involved regarding the Icebreaker offshore wind project in Lake Erie. This project should have been subjected to an Environmental Impact Statement (EIS) and how this might have been omitted is a mystery to me in view of the compelling consequences involved.

Why didn't the Ohio Department of Natural Resources (ODNR) director require an EIS for the Icebreaker as the past ODNR director could have done? It is not too late to do this! The ODNR has failed to give due diligence to demonstrate to Ohio citizens that the ODNR has taken the prudent and appropriate course of action to protect Lake Erie for Ohio's citizens in this matter by not requiring an EIS.



From the Ohio Coastal Management Program, Policy 16 – Public Trust Lands (in part):

IT IS THE POLICY OF THE STATE OF OHIO TO PROTECT THE PUBLIC TRUST HELD WATERS AND LANDS UNDERLYING THE WATERS OF LAKE ERIE, PROTECT PUBLIC USES OF LAKE ERIE AND MINIMIZE THE OCCUPATION OF PUBLIC TRUST LANDS FOR PRIVATE BENEFIT...

and referencing Ohio Revised Code and/or Ohio Administrative Code O.R.C. 1506.10 and 1506.11 and O.A.C. 1501-6-01 through 1501-6-06; O.R.C. 1506.32 and O.R.C. 1506.31

*The waters of Lake Erie and lands underlying them belong to the state as proprietor in trust for the people of the state for the public uses to which they may be adapted, subject to the powers of the United States government, to the public rights of navigation, water commerce and fishery, and to the property rights of littoral owners, including the right to make reasonable use of the waters in front of or flowing past their lands (O.R.C. 1506.10). Ohio's "public trust doctrine" was originally established in 1803 when Section 14, Article III, of the "Northwest Ordinance" gave the new state authority to regulate activities occurring in navigable waters within state boundaries.*

and please consider this:

<https://coastal.ohiodnr.gov/portals/coastal/pdfs/about/OCMP/Policies/Policy16-Public-Trust-Lands.pdf>

Ohio Coastal Management Program & Final EIS Part II 5 – 70 April 2007 OHIO COASTAL MANAGEMENT PROGRAM POLICY 16 –PUBLIC TRUST LANDS (very good article worth reading on public trust) (note item #2 that says:

2. Protection of Environmental Quality –The Director of ODNR may require an Environmental Impact Assessment to determine probable impacts of the activity upon the natural and human environment.

The state of Ohio, particularly the Ohio Dept. of Natural Resources, has abdicated its Public Trust Doctrine (PTD) responsibilities, by leasing sections of the Lake Erie bottomlands for the Icebreaker offshore wind demonstration project. But not only are the bottomlands leased – therefore so is the lake itself and the sky above it because it will be occupied and industrialized by private, foreign owned, wind turbines that are not needed – impacting marine, avian, human life and activities – for private benefit to Fred Olsen Renewables shareholders traded on the Oslo Stock Exchange under the ticker BON. I also feel the ODNR has abdicated its PTD responsibilities by not requiring an Environmental Impact Assessment (EIS) for the Icebreaker, which ODNR director has the authority to do. I feel the Ohio Power Siting Board would also be abdicating its PTD responsibilities by issuing a **certificate of environmental compatibility and public need** which gives the Icebreaker offshore wind project state permission to proceed developing this project. These ODNR and OPSB actions are contrary to the principles of the PTD. (fishing, swimming, boating, commercial shipping, aesthetics forever ruined by numerous massive industrial machines and their rotating rotor blades, desired darkness over the lake at night diminished by flashing turbine strobe lights,

turbine fog horns disturbing the lake quiet plus numerous other unacceptable problems.) Contamination of Lake Erie's drinking water is another dreadful possibility. The idea to industrialize Lake Erie with offshore wind turbines was begun by the Lake Erie Energy Development Corp. (LEEDCO) in about 2009. In 2016 LEEDCO, in financial trouble, sold the Icebreaker assets to Fred Olsen Renewables and a new company was formed called Icebreaker Windpower Inc. and Icebreaker's 501(c)(3) not-for-profit status changed to a private for-profit status and obviously providing new and much needed financial support to continue the project.

Offshore wind turbines are not needed. Ohio has a Public Trust Doctrine statute (as do most Great Lakes states) and it's our belief that the Icebreaker project or any Great Lakes offshore wind project is contrary and illegal according to the Public Trust Doctrine and this policy will likely be court tested in the future and ultimately defeat the Icebreaker environmental treachery. Keep in mind the Icebreaker project has morphed into a venture now owned by a foreign company, Fred Olsen Renewables (Norwegians) and the goal is to eventually locate hundreds of turbines in Lake Erie and be developed and controlled privately for their profit. Ohio cannot allow a business to tamper with the public's right to use Lake Erie for recreational boating, swimming, fishing, commercial fishing, commercial shipping or interfere with aesthetics that have existed since day one. It is very likely the Public Trust Doctrine will be the cause for major litigation to halt the Icebreaker project from being developed. To allow this project will certainly open the door to hundreds, maybe thousands, of additional offshore turbines not only in Lake Erie but in all the Great Lakes. What a disgusting thought.

Please consider the following:

### **Ohio Administrative Code**

#### **Chapter 1501-6 Lease of Lake Erie Submerged Lands**

##### **1501-6-03 Director's recommendations.**

###### ***(1) WATER DEPENDENCY***

*Generally, an application for a lease to place fill and/or to construct facilities in the territory for a non-water dependent development or activity (i.e. an improvement which by its nature does not depend on being located in or upon the water) will not be approved. An exception to this water dependency criterion would be an improvement in the territory which is beneficial and important to the general public's health, safety or welfare as determined by the director. Under this exception, there shall be no practicable alternative to the improvement including an alternative upland site, and all reasonable measures shall be undertaken by the applicant to minimize any adverse impacts upon the waters and underlying lands of lake Erie and the beneficial functions these resources perform.*

This section of the Ohio Administrative Code clearly is in conflict with the Icebreaker project as the erecting of wind turbines does NOT depend on being located in or upon the water and should not be approved and therefore comply with this section of the administrative code.

There is no need for siting wind turbines in Lake Erie water.

## Section 10 of the Rivers and Harbors Act (RHA) of 1899

The Icebreaker project fails the requirements of River and Harbors Act of 1899 which states:

*That the creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is hereby prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines, or where no harbor lines have been established, except on plans recommended by the Chief of Engineers and authorized by the Secretary of War; and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of War prior to beginning the same.*

For the Ohio DNR and OPSB to ignore numerous potential problems associated with this project and damage to Lake Erie – **is an abdication and betrayal of public trust**. What would Ohio's ODNR or OPSB do if a private company wanted to develop an offshore watersports theme park in Lake Erie off Cleveland? What would Ohio do if a private company wanted to create a system to draw water from Lake Erie and sell it for profit some place? Now tell me – how is the Icebreaker any different?

- I urge the ODNR director to require that an EIS be conducted for the Icebreaker project prior to it's final approval. Per the OHIO COASTAL MANAGEMENT PROGRAM POLICY 16, (#2) – the ODNR director has the right to require this. In the meantime the ODNR should invalidate the bottomlands lease for this project, which they have the right to do, and require from federal authorities that an EIS be conducted.
- Review and invalidate the ODNR bottom lands lease for this project as the lessee is no longer an Ohio not-for-profit 501(c)(3) organization but instead a foreign owned, for-profit, private company that plans to industrialize Lake Erie beginning with Icebreaker's 6 turbines. The project change from not-for-profit to for-profit is a significant one that must be considered as it's become a private unneeded business situated in Lake Erie.
- The Icebreaker project is in direct conflict with the Ohio Public Trust Doctrine and should be rejected for that reason alone.
- It is illegal for the ODNR to ignore **Section 10 of the Rivers and Harbors Act (RHA) of 1899** and approve this project.

I would appreciate a response from you in this matter.

Thank you.

Sincerely,

Alan Isselhard, Great Lakes Wind Truth



#### ABOUT THE AUTHOR

The Great Lakes Wind Truth is a collection of persons and groups around the Lakes, who discovered a mutual need to increase knowledge of the fragility of the Lakes and Basin systems, and who are completely committed to defeating any single industrial wind project single or multiple, that would upset delicate ecosystems, compromise water supplies, and negatively affect fishing, boating, migration routes, and the complex underwater life and lake bottom, that has already been compromised over time.



<https://survey.zohopublic.com/zs/XyCsg8>

## THIS IS THE LINK

### Lake Erie Icebreaker Wind Turbine Facts

#### Background

Icebreaker is the first offshore wind turbine facility proposed for the freshwater Great Lakes. This “demonstration” pilot project will consist of six (6) wind turbines and submerged collection cables running to a facility substation to be connected to the Cleveland Public Power System. The turbines will have a 3.45 MW nameplate capacity each for a total project capacity of 20.7 MW. The six (6) wind turbines will have a total tip height of 479 feet and will be located 8 miles northwest of Cleveland, which is 5.7 nautical miles from shore.

**To be clear, Icebreaker’s developers have indicated their intent to build an additional 1,400 to 1,600 wind turbines across Lake Erie by the year 2030. Those statements by LEEDCO (an Icebreaker partner) officials have been made on the record on multiple occasions.**

**After doing extensive research on the Icebreaker Wind proposal, we have serious concerns about siting wind turbines in Lake Erie.**

#### 1. Environmental concerns

- Lake Erie was named a “Globally Important Bird Area” by the Audubon Society due to the millions of birds that migrate across the lake each spring and fall. In addition, Lake Erie is a habitat for species of birds deemed “endangered” and “threatened” by the US government.
- The U.S. Fish & Wildlife Service recommends siting wind turbines at least 3 miles away from the open waters of the Great Lakes, because of confluence of migration routes over the Great Lakes, including Lake Erie.
- The Nature Conservancy recommends siting wind turbines at least five miles away from the open waters of the Great Lakes. They cite two reasons. First, the importance of not disturbing bird’s primary migration routes over the Great Lakes. Second, disturbances from wind turbine construction attracts predator fish to fragile fish spawning grounds. As a result, those predator fish feed on the young hatchlings of our native fish (such as Walleye and Perch), reducing their population.
- The U.S. Fish & Wildlife Service, in 2 letters to the U.S. Department of Energy (DOE), stated that “the project warrants an Environmental Impact Statement (EIS) –level analysis. We

recommend that the DOE conduct an EIS to document the significance of the proposed project on fish and wildlife resources.”

- According to September 18, 2018 testimony before the Ohio Power Siting Board by Erin Hazelton, Wildlife Administrator, Ohio Division Of Natural Resources, many of the stipulations and representations by Icebreaker are “not in the public interest regarding protection of wildlife and do not satisfy the requirements of R.C.4906.10 (A)(3), which requires the project to represent the minimum adverse environmental impact.”
- The Black Swamp Bird Observatory, as well as the American Bird Conservancy have taken the position that the bird and bat studies prepared for Icebreaker’s Environmental Assessment (EA) were inadequate. They found flaws in those studies, which were prepared by consultants hired by Icebreaker and paid by Icebreaker, leading to outcomes that predictably favored Icebreaker. They believe that an Environmental Impact Statement (EIS) is the correct, objective, thorough, scientific study that should be required for Icebreaker.
- The Massachusetts Recreational Fishing Alliance has found the areas around the Block Island Wind power cables to be “devoid of marine life”, due to their electromagnetic fields.
- According to LEEDCO, each turbine will contain 404 gallons of industrial lubricants in their gearboxes. Wind turbine gearbox seals are known to fail, leaking oil and grease onto the area below.
- The Army Corps of Engineers has been dumping industrial toxic sediment such as PCB’s from Cuyahoga River into Lake Erie for close to 100 years. Those toxins are currently encapsulated under layers of mud and silt which will be stirred up while building foundation & laying cables. *Cleveland’s main water intake, the Crib, is located just down-current from this location*

## 2. Net job losses, not job creation

Icebreaker has rallied support for this project by claiming that it will create “8,000 new good-paying jobs” and turn Northeast Ohio into a national hub for wind turbine manufacturing. The claim for the creation of 8,000 jobs is linked to an Icebreaker document which details their plans to develop 5,000 megawatts of wind power in Lake Erie by the year 2030. This plan would require building a massive industrial-scale wind facility on Lake Erie consisting of around 1,450 turbines.

The facts show that very few permanent jobs have ever been created by these type of projects. Higher electric costs from wind power have *actually* resulted in manufacturing job losses in parts of North America. Higher electric costs from green mandates, have manufacturers to move to parts of the country with lower electric costs.

### Ontario

- Ontario citizens were told that the Green Energy Act (GEA) of 2009 would create 50,000 new jobs and establish Ontario as the center of renewable energy manufacturing in North America.
- The fact is that Ontario lost 300,000 jobs in the decade since the Green Energy Act was enacted. The thousands of wind turbines doubled electric rates to Ontario homes and businesses. Some manufacturers with high electric consumption moved out of the province to escape Ontario’s high electric costs.

### **Block Island**

- The Block Island Offshore Wind Facility in Rhode Island, created about 300 temporary construction jobs, most of which went to experienced European-based installers due to the specialized nature of installing the European-built turbines. Less than 10 permanent jobs were created.
- The wind facility increased electric rates for homes and businesses on the mainland. One of Rhode Island's largest manufacturers, Toray Plastics was facing a \$7 million increase in annual electric costs as a result, threatening the loss of 600 jobs. The State gave them \$15mm to build their own electric generator to keep them from moving to a state with lower electric costs.

The developer's representatives then began stating that the *Icebreaker project*, has "no intent to build more than 6 wind turbines" in Lake Erie and that the Icebreaker project would create "500 new, good paying jobs".

The facts show however, according to their own consultant's study (document DOE/EA-2045) that the project *could* generate 159 temporary onsite construction jobs for local workers. An additional 187 specialized temporary construction jobs *could* be created for "highly specialized workers who would come from outside of the area and would remain only for the duration of the construction." The report is vague about how it would create the additional 150 jobs to reach their claim of 500 jobs. The dirty little secret about reports which developers submit from their paid consultants, is that they don't know how many jobs will be created. They are estimates, to help the developer secure the regulatory approvals and government funding needed to move forward with their plans.

The same report states that Icebreaker could create 9 permanent jobs. That is a more realistic estimate based on the number of actual permanent jobs created by both the Block Island offshore wind facility and the Steel Winds onshore wind facility in Lackawanna NY.

Icebreaker's 159 temporary local construction jobs and 9 permanent jobs, need to be weighed against job losses to Lake Erie tourism.

- Lake Erie tourism supports 124,000 actual jobs and spending of \$14 Billion per year.
- A recent study by North Carolina State University showed that over half of vacationers would not rent a vacation home if offshore wind turbines were in view.

Building wind turbines in Lake Erie will have a devastating effect on Lake Erie tourism resulting in job losses and loss of tourist spending that would more than outweigh the 159 temporary local jobs and only 9 permanent jobs that could result from this project.

### **3. Follow the money- A foreign company now has the rights to the land under Lake Erie**

#### **Foreign Ownership**

The Icebreaker project was started by LEEDCO, a Cleveland based non-profit. LEEDCO signed an agreement to sell their "assets" to a large foreign multinational company, Fred Olsen Renewables of Norway. Fred Olsen is now the owner of Icebreaker Windpower, Inc. Fred Olsen is also the owners of Fred Olsen Energy and Dolphin Drilling, which have been in the offshore oil & gas exploration and drilling business for over 50 years.

#### **The Submerged Land Lease for Lake Erie**



LEEDCO's most valuable "asset" is a 50-year Submerged Land Lease with the State of Ohio, giving them the rights to the bottom of Lake Erie in the area where the turbines and power cables would be located. In February of 2017, the State of Ohio Department of Natural Resources (ODNR), assigned (transferred) that lease from LEEDCO to Icebreaker Windpower, Inc. Signing and accepting that lease on behalf of Icebreaker was David Brunt, CEO of Fred Olsen Renewables AS of Oslo Norway.

### **The Public Trust Doctrine**

Ohio's Public Trust Doctrine states that the land under Lake Erie is owned by the State and is to be held in trust for the benefit of Ohio's citizens. Fred Olsen Renewables, a foreign company, is the new owner and developer of the Icebreaker Wind project and they have secured the submerged land lease, the "rights" to land under Lake Erie. Fred Olsen will benefit by Ohio's transfer of Lake Erie's submerged land lease to them in the following ways:

1. They are set to receive around \$50 million in U.S. federal taxpayer subsidies through 2 DOE grants.
2. They will receive U.S. federal Production Tax Credits to lower their taxes.
3. They will receive U.S. federal Investment Tax Credits to lower their taxes
4. They have been granted a Payment In Lieu of Taxes (PILOT) tax break by Cuyahoga County.
5. Cleveland Public Power and Cuyahoga County have signed agreements to buy Icebreaker's power at a price estimated to be 500% higher than current power pricing off of the grid. That agreed upon price is a rate "not to exceed \$181 per megawatt hour plus annual increases", while power from the grid is available at an average cost of around \$35 per megawatt hour.

As Warren Buffett explained: We "get a tax credit if we build a lot of wind farms. That's the only reason to build them. They don't make sense without the tax credit."

Ohio's citizens will not benefit by the construction of Icebreaker. Fred Olsen will benefit by receiving \$50 million in US taxpayer subsidies and multiple tax breaks. They will then sell the electricity back to us at a markup 500% higher than readily available power off of the Grid. Fred Olsen will receive all of the financial benefits gained by acquiring the Submerged Land Lease to Lake Erie, while Ohio's citizens will not benefit.

This is clearly a violation of Ohio's Public Trust Doctrine, a law intended to benefit Ohio's citizens, not a foreign wind developer and oil & gas driller.

### **4. The dirty little secrets that Icebreaker doesn't want you to know**

The cost of constructing and maintaining an offshore turbine is 3 to 4 times higher than onshore.

- Icebreaker is expected to cost about \$126mm to construct, resulting in capacity of 20.7 MWh. The steel Winds onshore project near Buffalo cost 75% less to build and it generates more power capacity.
- Maintenance costs are 3 to 4 times higher offshore. Imagine replacing a gear in high waves or winter.



- The useful life of a turbine is about 20 years. At which point many must be decommissioned and removed. California has thousands of wind turbines that were abandoned and are falling apart.
- Many of the wind farm's built in Germany 20 years' ago will lose their government subsidies in 2020 and a recent article details concern about the lack of funds available to remove the turbines. So *who* will be stuck footing the bill for the removal of these 1,400 turbines?

#### **Wind power doesn't replace conventional sources of power**

- The fact is that the wind isn't always blowing making wind an unreliable source of power.
- Northeast Ohio's peak electric demand is during the summer months of July and August due to air conditioner use. Those are also the months when the wind blows the least on Lake Erie.
- As a result, traditional power plants must still be operating, cycling up & down to match demand, which creates more carbon emissions than if they were allowed to operate at a constant level.

#### **Wind Turbine syndrome has affected many people in a short period of time**

- Recent studies have revealed significant and sometimes debilitating health affects for people a close as 20 miles from the giant wind turbines. This distance would be extended over water because of the clear path for the sound to travel. Cleveland area residents will be as close as 5.7 nautical miles.
- Thriving Edgewater Park and the Detroit-Shoreway neighborhood will be at significant risk....as will many other neighborhoods. What this syndrome does to fish and wildlife is not widely known.
- Credible studies (not bought and paid for by the Turbines developers) indicate significant risk.

#### **Wind turbines in Lake Erie add flight risk to those using Burke Lakefront Airport.**

- Save our Sound from Cape Cod Massachusetts found the FAA had approved Wind Turbines for their waters against the FAA's own regulations. They were able to get a judge to rule in their favor. We have an air ambulance company at Burke that requires emergency clearances.
- Wind Turbine turbulence will add added safety measures when bringing patients in. This is a good business and also brings our world class area hospitals a lot business.

Icebreaker is providing a performance bond for the decommissioning; however this will cover only a fraction of the cost of safely removing these from our lake. Billionaire owner Fred Olsen refused to provide a personal guarantee for the decommissioning costs.

#### **Project Status**

On July 3, 2018, the Ohio Power Siting Board (OPSB) staff recommended that the OPSB Board approve it- provided that Icebreaker LEEDCO can meet nearly three dozen conditions (stipulations). Among the conditions, LEEDCO must install sophisticated radar equipment at the site on the lake before the six turbines are installed and remain operating for two years once operations begin; eliminate overnight operations from March 1 to Jan. 1 unless they can prove to the Ohio Department of Natural Resources (ODNR) that the six wind turbines are not a threat to migrating birds and bats.

Icebreaker Windpower, Inc. has been negotiating to reduce those stipulations since autumn of 2018. They have until May 8, 2019 to reach agreement with the OPSB staff. After May 8<sup>th</sup>, the OPSB Board will need to meet to approve or decline issuing a construction certificate.

## Conclusions

After doing extensive research on the Icebreaker Wind project, we have serious concerns about siting wind turbines in Lake Erie.

- First, this project is precedent setting, as the developer has stated that Icebreaker is a demonstration project to prove the feasibility of building an additional 1,400 to 1,500 wind turbines in Lake Erie by the year 2030.
- Second, Lake Erie is the source of drinking water to 11 million people and there is much uncertainty about the environmental impacts of this project on the Lake Erie's already fragile ecosystem.
- Third, Lake Erie is a critical migration route for millions of birds, including endangered and threatened species. Environmentalist's guidelines call for siting wind turbines onshore, at least five miles away from the open waters of any of the Great Lakes.

The State has an obligation through the Public Trust Doctrine, to protect Lake Erie for the benefit of Ohio's citizens, not the foreign for-profit developer of this project who will profit from its completion. As such, the State of Ohio must show that they've based their decisions, *decisions affecting the future of Lake Erie*, on the proper due diligence.

We urge the State of Ohio to stipulate the completion of an Environmental Impact Statement (EIS) as a condition of approving this project. The scrutiny of an EIS will demonstrate that this proposed project will cause harm, will be of lasting harm, and will most certainly lead to the end of this idea of turbines in the Lake. **We further ask that given the increasing interest from the public and politicians in ending wind turbine proliferation in the Lakes, that a complete moratorium be advanced for the ENTIRE LAKES AND BASIN.**

We respectfully request you join our call for that moratorium, and that you advance your/our position with Governor DeWine and the OPSB (Ohio Power Siting Board).

Contact the Governor:

[Dan.mccarthy@governor.oh.gov](mailto:Dan.mccarthy@governor.oh.gov)

Contact the Ohio Power Siting Board

[Matthew.Butler@puco.ohio.gov](mailto:Matthew.Butler@puco.ohio.gov)

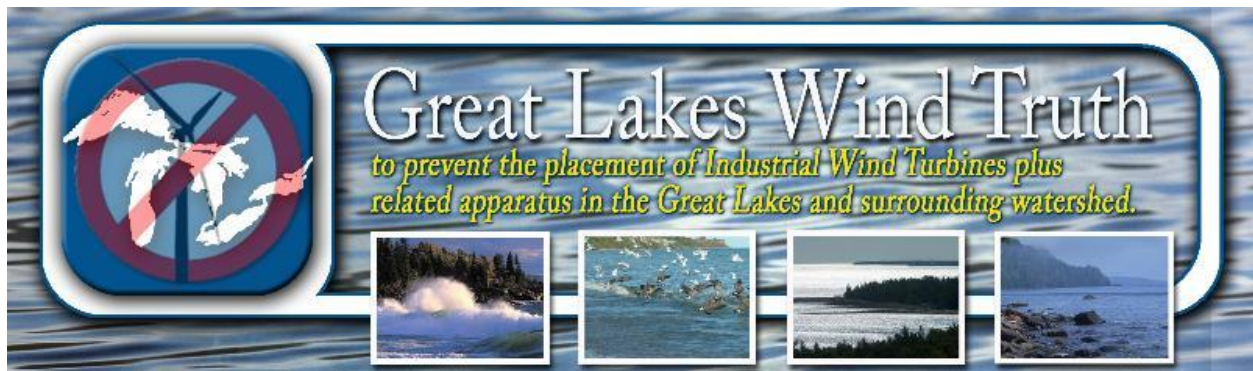
*On behalf of Great Lakes Wind Truth, North American Platform Against Wind Power, Save Our Beautiful Lake, Lake Erie Foundation, and countless other organizations representing millions of persons.*

[www.greatlakeswindtruth.org](http://www.greatlakeswindtruth.org)

[WWW.SAVETHEEAGLES INTERNATIONAL.org](http://WWW.SAVETHEEAGLESINTERNATIONAL.org)

[www.na-paw.org](http://www.na-paw.org)

[www.wind-watch.org](http://www.wind-watch.org)



**FOR IMMEDIATE RELEASE**

**March 27, 2019**

***USACE APPROVAL LACKING IN GOOD JUDGEMENT, AND APPEARS  
POLITICALLY MOTIVATED, SAY OPPONENTS OF THE LEEDCO  
ICEBREAKER OFFSHORE PROPOSAL***

*...there is none (NO NEED) , the harm, inevitable, and the insult to nature, obvious.*  
(Suzanne Albright)

After two years USACE has granted approval for wind developers LEEDCo/Icebreaker under a formidable list of “to dos”, but objecting groups and persons continue to apply pressure and provide factual evidence about the inevitable destructiveness of the proposed six turbine Vestas 3.45 MW turbines slated for offshore Cleveland.

Al Isselhard, a founding member of Great Lakes Wind Truth, followed up the news quickly with questions to the OPSB (Ohio Power Siting Board) and Mr. Joseph Krawczyk of the USACE.

What were the deciding factors for the decision? Please provide evidence of your facts. He urges further communication with influence and policy makers, that an EIS (Environmental Impact Study) must be forced onto the project.

This is not the first time objectors such as BSBO (Black Swamp Bird Observatory), ABC (American Bird Conservancy) and many others, have demanded more environmental scrutiny. The [list of objectors continues to grow](#) weekly. Among those are international groups who recognize the intrinsic value of 20% of the world's remaining fresh water and a repository of natural wonder. Locally and closer to the project, objectors include: [Save Our Beautiful Lake](#), Lake Erie Foundation, Charter Boats Association of Lake Erie, Port Crescent Hawk Watch, Michigan Boating Industries Association, Save Ontario Shores, Orleans County Lake Erie Marine Trades Association, Save the Eagles International, Delta Waterfowl Foundation, Great Lakes Sports Fishing Council (Tom Marks), Officers of Erie County Federation of Sportsmen's Clubs, and Western New York Environmental Federation. This is a very partial list. (*See link above or in resources for a more complete list, representing millions.*)

Sherri Lange of Great Lakes Wind Truth and NA-PAW (North American Platform Against Wind Power), states that the developer from many years back, has never been forthcoming about the real nature of the this proposal, referring to it as a “demonstration” project; the public now understands the actual “plan” is for 1400 and more, a Saudi Arabia” of wind, as Rep Marcy Kaptur calls it. Several sources have cited the developer and supporters outlining capability to have 5,000 megawatts in Lake Erie by 2030. ([President of LEEDCo Lorry Wagner quoted in Hi Velocity May 19th, 2011](#)). The developer(s) are now foreign billionaire multi nationals, with a 50-year lease of the lake bed, skimming off precious tax dollars and subsidies, loans, guarantees, forgive- nesses, and advantages of an obscene level. There is no public need; the project would certainly impact water quality, and deliver mortality for multiples species, some endangered. The job myth has been deflated widely around the world: after construction, very few permanent jobs remain. And those are not what is termed, net full-time jobs, as turbines only last 10-15 years, not 20-25. Repairs often begin to be required as soon as five years in.

Suzanne Albright also of Great Lakes Wind Truth and NA-PAW reflects on the “fat” inside offshore wind development, recognized even by the developers, who claim they can now perform without the insanely high gifting of subsidies. “Why are the foreign multi national billionaires coming to our Lakes, and our Eastern Seaboard, grabbing up offerings of lease tenders? Because it is easy pickings.” She urges that U.S. governors and policy makers reflect on the “need” .... ***there is none, the harm, inevitable, and the insult to nature, obvious.***

Collaborating agencies of Lake Erie Foundation, Save Our Beautiful Lake, Save Ontario Shores and many more agree fully, that they will not be deterred to end this proposal which will despoil one of the most abundant migration bottlenecks in the world.

Lange states: it is obvious that many “black holes” seem to be tucked inside the current preparations for application to the OPSB, and that many requirements have not been met, nor can they be in all honesty. “The developer’s story line is that “birds do not fly over the lake, which is incredulous enough, but on reading court testimonies, this developer is much the same as others (developers) in displaying astonishing lack of knowledge of migration and bird and bat life. “It is clear that legal testimony given by individuals against this proposal, indicate that this developer’s experts’ knowledge of the assets of the lake, and its living assets, are paltry and insincere ([Erin Hazelton and others.](#))”

To quote the testimony of Erin Hazelton: *“Stipulation Condition 19 is not in the public interest regarding protection of 7 wildlife and does not satisfy R.C. 4906.10(A)(3), which requires the project 8 to represent the minimum adverse environmental impact.”* So while the developer has agreed to “explore” options to meet requirements of the MOU, abundant insecurity about wildlife protection is obvious and ongoing.

Albright also refers to a reality check on Block Island where promises were made, and certainly not kept. (Islanders would see 40% reductions in their electricity bills, wind turbines would be scarcely noticeable, and the wind facility would be a leader in the fight against global warming, making Rhode Island a leader in “saving the planet.”) “That bandwagon, she states, “has left the building.” Albright cites the enormous cost of Block Island for at this juncture, zero apparent benefit (\$300,000,000 Three Hundred Million Dollars).

[Albright has also challenged the Icebreaker Media stories](#) which claim that “dozens of local, state and federal agencies,” have lined up to support Icebreaker, Inc. She expresses that this is possibly an exercise in “image making.” She has requested that these be identified.

To Isselhard, Albright and Lange, the developer(s) have not yet advertised to the public that they can guarantee minimum adverse environmental impact. They are “exploring,” but how can that be sufficient. Once the proposed project is in place, it will not be time for “exploring” anything. “Mitigation” is a wind developer’s word for counting dead birds and bats.

Given that the USACE failed to arrive at the right decision to protect Lake Erie, Groups are calling for an immediate and voluntary “surrender” of the lake bed lease, as happened with Cape Wind, when the obstacles for the project outgrew any prospect of success.

## Media Contacts

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## RESOURCES

<http://dis.puc.state.oh.us/TiffToPdf/A1001001A18I18B63523C01805.pdf>  
<http://greatlakeswindtruth.org/cleveland-leedco/offshore-wind-plan-in-lake-erie-criticized-internationally/>  
<http://www.na-paw.org/icebreaker/4-Partial-List-of-groups-and-individuals-opposed-and-letters-of-importance.pdf>

<http://www.na-paw.org/icebreaker/1-Icebreaker-background-and-facts.pdf>  
<http://greatlakeswindtruth.org/cleveland-leedco/letter-to-mary-mertz-dnr-re-icebreaker/>  
[https://www.manhattan-institute.org/green-energy-revolution-near-impossible?utm\\_source=CCNet+Newsletter&utm\\_campaign=69fd5b83af-EMAIL\\_CAMPAIGN\\_2019\\_03\\_27\\_02\\_25&utm\\_medium=email&utm\\_term=0\\_fe4b2f45ef-69fd5b83af-36403161](https://www.manhattan-institute.org/green-energy-revolution-near-impossible?utm_source=CCNet+Newsletter&utm_campaign=69fd5b83af-EMAIL_CAMPAIGN_2019_03_27_02_25&utm_medium=email&utm_term=0_fe4b2f45ef-69fd5b83af-36403161)  
<https://www.windpowerengineering.com/business-news-projects/lake-erries-icebreaker-wind-project-gains-key-federal-approval/>



<http://greatlakeswindtruth.org/newsworthy/another-voice-wind-turbine-farms-do-not-belong-in-lake-erie/>

## **Another Voice: Wind turbine farms do not belong in Lake Erie**

- AUG 17, 2019
- NO COMMENTS
- [CLEVELAND LEEDCO](#), [GREAT LAKES ECOLOGY](#), [HEALTH AND WATER](#), [NEWSWORTHY](#), [OTHER LAKE PROPOSALS](#)



**Credit:** By Paul Michalec | The Buffalo News | Fri, Aug 16, 2019  
| [buffalonews.com](http://buffalonews.com) ~~

In April, I attended a meeting with Diamond Wind where the company presented a proposal to place 50 wind turbines in Lake Erie, from Buffalo to Dunkirk. By the end of their presentation every person in attendance was opposed to the plan.

I believe if people would take the time to weigh the pros and cons of this proposal, most would come to the same conclusion that I did: Wind turbines do not belong in Lake Erie or in any of the Great Lakes.

My argument falls into three categories: their effect on the environment; their economic impact; and the aesthetic importance of Lake Erie.

Concerning the environment, Lake Erie provides not only our drinking water but water for nearly 12 million people. Turbine placement would stir up contaminants that will affect that supply.

Damaged turbines could spill oil and lubricants into the water. In winter, turbines might need to be de-iced and those chemicals would also fall directly into the water or onto ice. We cannot let this damage happen.

As for economics, the Diamond Wind proposal has a plate-rated capacity of 200 megawatts. But that is only when the wind is blowing and all turbines are spinning. No wind means no electricity.

But even on windy days, the New York Independent Systems Operator has curtailed wind-driven generation because the grid cannot accept the power due to transmission constraints. New York has an aging grid that has problems moving electricity. The grid system needs massive financial investment and without it wind turbines are just white elephants.

Secondly, the Diamond Wind representatives clearly stated electric rates would rise to support their plan. Rates are also going up to support the state's offshore wind project in the Atlantic Ocean. We cannot afford higher rates.

Finally, concerning the aesthetic importance of Lake Erie, I find it surprising the level of support Sierra Club has for turbines in Lake Erie. On their website there is a quote from Nancy Newhall which reads "(We cannot) violate our parks, forests, wildernesses ... to ruin for all time what all time cannot replace," yet they find it acceptable to violate Lake Erie to fight climate change.

Lake Erie is the great moderator of Western New York's climate. It provides us with fresh drinking water and supports abundant wildlife. I think the panorama that is Lake Erie and its unbroken horizon should remain untouched for future generations' enjoyment and sense of place.

Many other great panoramas are protected from development. The Great Lakes deserve the same.

*Paul Michalec is chairman of the Town of Evans Conservation Advisory Commission and Climate Smart Task Force.*

<http://greatlakeswindtruth.org/newsworthy/master-resource-update-on-icebreaker-july-2019/>

Excerpts from Master Resource, Energy Blog, July 2019



## Lake Erie Offshore Wind Proposal: Economic Cronyism, Environmental Boondoggle

By Sherri Lange — July 3, 2019

“LEEDCo/Icebreaker would do well to abandon its hoped-for permit from the OPSB. The obstacles and problems have been pointed out repeatedly by experts, individuals, birding organizations, ecologists, in consultations, letters, formal legal presentations; enough to fill volumes. Its ten-year-long attempts to capture subsidies while overlooking viable and responsible care for the environment are unsustainable.”

“This proposal has so many indisputable strikes against it,” says [Bryan Ralston](#), president of the Lake Erie Marine Trades Association. “We’re calling for the OPSB to reject it outright. It cannot be justified economically. It will raise, not lower, consumer’s electrical rates. It cannot survive without taxpayer subsidies. It’s an environmental disaster and it will become an industrial size turbine graveyard in the future.”

Over the years, I have followed the aspirations of Lorry Wagner’s LEEDCo wind project—now the Icebreaker Wind project of Fred Olsen Renewables,

Inc. of Norway—to build six turbines off the shore of Cleveland in Lake Erie.

- [Lake Erie Offshore Wind Proposal: Economic Cronyism, Environmental Boondoggle](#) (July 2018)
- [Offshore Wind: Rough Waters for LEEDCo 'Demonstration Project' \(environmentalists rise up\)](#) (November 2017)
- [Lake Erie Wind Turbines? Complaints Pour In \(Part I: Overview\)](#) (October 2016)
- [Lake Erie Wind Turbines? \(Part 2: Environmental Issues\)](#) (October 2016)
- [LEEDCo Lake Erie Wind Project: Joint Letter of Protest](#) (April 2014)

A decade's worth of effort by the developer has burned \$10–13 million (much of it [DOE-funded](#)) with the prospect of [\\$126 million to come](#). We have heard the propaganda: jobs, manufacturing chains, cleaner air, no environmental harm ... saving the earth one turbine at a time ... reducing CO<sub>2</sub> and getting off the fossil fuel addiction.

None of these claims are true or useful.

We have also seen the former Ohio Power Siting Board (OPSB) Chair Todd Snitchler provide the developer with a [laundry list](#) of to-do's, reflecting application omissions and errors. Under that daunting shadow, and perceived failure of this proposed project, Case No. 13-2033-EL-BG has disappeared and is now OPSB Case No. 16-1871 EL BGN, replete with new approvals, new public consultations, new design (suction mono bucket), and a new foreign billionaire partner, Fred Olsen Renewables.

### **Environmental Objections**

The rebranded project faces innumerable [objections](#). The opposition is a who's-who of local parties, many environmental.

They include Save the Eagles International; Great Lakes Wind Truth; Save Our Beautiful Lake; Representatives of Port Crescent Hawk Watch in Michigan; Michigan Boating Industries Association; Save Our Shores, Orleans County; Lake Erie Marine Trades Association (a Cleveland-based trade association of 100 plus boat dealers, marine operators, and service companies); Interstate Informed Citizens Coalition; and Michigan Boating Industries Association.

### **Birds Are in the Area**

The developer denies that birds fly over the lake. But at the same time, he offers a half-based radar observation proposal for those phantom birds.

This stance displays a disdainful approach to the proposed project's Lake Protection and to experts who have repeatedly written to the USACE, DOE, ODNR, and OPSB (US Army Corps of Engineers, Department of Energy, Ohio Department of Natural Resources, and the Ohio Power Siting Board), about the natural and unique magnificence of the internationally known migratory "bottleneck," and its attendant economic abundance for Ohio. ([Ohio has about 2% of the water](#) of the Great Lakes, but about 50 percent of the fish: this also means that birds needing fish as food, are drawn to this Lake in sheer volume.)

The developer repeatedly has said, even to Cleveland based Senator Sandra Williams, "There is no migration across the lake; birds do not fly over the lake."

This is in the face of overwhelming evidence of the bottleneck of migration, clearly articulated in the work of Black Swamp Bird Observatory and ABC (American Bird Conservation). Ohio is home to [serious birding efforts](#), creating an economy with its own magnetic economy. [Birding in Northwest Ohio](#) in one spring, accounted for a boost of \$30,000,000 (thirty million dollars). [The Ohio Sea Grant](#) reports that tourism related to birdwatching in Ohio in six natural areas along Lake Erie,

generated \$26,438,398 in 2011, created 283 jobs for those living and working in these coastal communities, generated \$8.9 million in personal income, and contributed \$1.9 million tax revenues directed to local and state coffers. Birders visiting Lake Erie provide significant revenue infusions to the regions year around.

Protection of the wildlife, birds, bats, butterflies, dragon flies, fish and all aquatic interests, appears the lifeblood of the protesting groups. CA Wildlife biologist and wind turbine expert, Jim Wiegand, [wrote this](#) in a letter to the DOE protesting the six turbines, proposed to morph into 1,450 or more:

The Lake Erie Improvement Association with supporting opinions from 13 birding organizations, states the Lake Erie Marsh Region is recognized as globally important for migratory birds as millions of migratory songbirds, shorebirds, and waterfowl stop here to feed and rest every spring and fall during their long-distance migrations. In addition, Lake Erie shorelines and attendant inland natural areas are also home to a large number of permanent residents. Nearly 400 bird species have been documented in this region. Visiting birders travel to this region of northwest Ohio. Lake Erie marshes make up the largest stopover habitats in the eastern United States between coastal habitats and northern breeding areas.

Mr. Wiegand also refers to the fact, acknowledged by European Wind Energy Association, that “For offshore wind, there is little knowledge regarding certain aspects, such as collision mortality.” (The first offshore wind farm was constructed in Denmark in 1991.)

After examining the materials supplied by LEEDCo/Icebreaker on “studies,” Wiegand concluded that Kerlinger, a well-known paid professional on behalf of the industry, and Tetra Tech, are deeply conflicted, deliberately designing studies to minimize actual flights.

“... for Tetra Tech’s Lake Erie research ... important incidental data could be excluded, so radar sampling missed the highest concentrations of migrating species and very important data detailing lower altitude bird flight patterns during periods of low visibility were left out.

**Radar.** Radar assessments and plans for the proposed project are ridiculously inadequate and cannot in their present form inform of potential impacts, nor can they measure species at risk, endangered species, and it seems they are not designed to register creatures under 20 grams. (The Blackpoll Warbler, weighing 12 grams, about the weight of “two nickels and a dime,” travels more than 1,500 miles nonstop: “ from the forests of New England and eastern Canada to the Caribbean, en route to its wintering ground in South America.” Others say it travels some 8,000 miles on occasion, including a possible non-stop flight of 88 hours, in a migration event of complete wonder.)

The proposed radar information to be accumulated then, leaves out a multitude of songbirds, rare butterflies, insects. There is also the inherent sinister flaw in “post construction” studies, which implies there WILL be harm, mortality, with the developer self-reporting the resulting mortality.

### **Vänern: Bad Precedent for Icebreaker**

An ongoing embarrassment for the developer is the *abject failure of the freshwater lake installation in Sweden, [Vänern](#)*. This first ever freshwater installation was hailed by Lorry Wagner as a model of how harmless and benign freshwater turbines are. This comparison can now be seen as possibly “debilitating.”

In 2010, LEEDCo invited the Swedes to present their plan for ten turbines in a shallow lake of ten feet to rocks, Lake Vänern, to an audience at private Cleveland based University Case Western. This project, used as a positive reference point, first world turbines in fresh water, has proven embarrassing.

The project is in a condition of “crisis,” financial stress, near bankruptcy and, after much wrangling, approaching a hopeful sale. The distress sale can only occur if various technical problems are resolved: gear boxes, cabling and loss of power. “The insurance company Trygg Hansa has to pay SEK 10 million (US dollars 1,053,750.00, One Million, fifty-three thousand, seven hundred fifty dollars) to the municipal company Vindkraft Vänern as compensation for damage to the wind farm’s wind turbines: “Developers knowingly withheld ‘data’ on the failures: “We chose not to go out with the data when we are doing a sale so as not to spread more negatively about the wind farm than necessary,’ says Mats Enmark.” If Vänern is any bellwether for turbines in Lake Erie, Icebreaker, take heed.

### **Objectors Are Out In Force**

At the present time, approvals have been granted by DOE, USACE and other permitting agencies. But to objectors, the shadow of the former prescribed and punishing requirements by the former Chair linger. (Chairman Snitchler indicated the studies contained errors, contradictions, and “minimal analyses.”) NONE of those corrections, to our mind, has been met.

Current Intervenor, represented by John Stock, have *not* signed the “stipulation” agreement. As he points out, his clients have a superior non-self-interested reason for objecting to Icebreaker:

The Cuyahoga Residents possess a direct, real and substantial interest in protecting Lake Erie birds—not simply the derivative interest that Icebreaker admits justifies intervention by the Sierra Club, the Environmental Council, the Carpenters, or the Offshore Wind Business Network.

What is emerging is a pattern of cronyism, cooperation, and a chilling absence of credible and viable evidence that the developer has responded to the proposed investigations the OPSB demanded back in 2014; also emerging is an pronounced lack of clarity in terms of acknowledging potential environmental and economic pending harm.

- Intervenor with lawyer John Stock have not signed or agreed with the stipulation documents.
- Public Trust issues are truly insurmountable. LEEDCo (Lake Erie Energy Development Corp.) sold the “assets” to Fred Olsen Renewables, now operating as Icebreaker Windpower Inc., which is a for-profit. As many have pointed out, industrial wind is a subsidy sucker, and Ohio literally does not need this proposed project.

### **Bad Economics**

Matt Brakey mentions the super cost of Icebreaker: in “Cleveland Dot Com,” 2018, he asks: “Would you pay \$8 for a dozen eggs? Would you pay \$12 for a cup of coffee?” He goes on to explain the per MW cost, and the history of bad decisions on the part of Cleveland Public Power (CPP). He writes: “What is unforgiveable is that CPP knows how overpriced the Icebreaker power will be. If reality aligns with CPP’s project expectations, the result will be further inflated electric bills for its customers.”

An unknowing public, thinking it is responsible for Climate Woes, signs Power Pledges. Will the eventual cost be in the Trillions? Please don’t forget the “additional” costs: transmission, repairs, adjustments to the grid, all borne by ratepayers.



And what for? There will be a few permanent jobs, very costly, the air will not be cleaner, the climate or weather will continue its mysterious events, and industrial wind in Lake Erie will only be an expensive, frivolous, dangerous, and disappointing activity. The claims of this developer are wildly untrue, and alarming. It is time to reclaim the profit taking, and demand repayment for the bogus studies and extensive public engagement.

### **A Few More Realities**

**Block Island:** Six turbines, approximately 300 construction jobs, approximately six permanent jobs; ongoing jobs to be had while transmission cables are re-buried at enormous cost.

**Cleaner Air/Need for Wind Turbines:** Worldwide less than half of one percent, net zero, electricity is met with wind. Direct effects such as bird and bat kills, concrete foundations rattling rare aquifers, and dirty pollution in Inner Mongolia regarding mining of rare-earth metals for the magnets, and the fact that not one gram of CO<sub>2</sub>, if that is your measure, is lessened despite the hundreds of thousands of turbines now installed, show this wind experiment as a tawdry testament of one thing: corporate profits. It most certainly cannot be termed “green.”

Steel is made with coal, not just to provide the heat for smelting ore, but to supply the carbon in the alloy. Cement is also often made using coal. The machinery of “clean” renewables is the output of the fossil fuel economy, and largely the coal economy.

A two-megawatt wind turbine weighs about 250 tonnes, including the tower, nacelle, rotor and blades. Globally, it takes about half a tonne of coal to make a tonne of steel. Add another 25 tonnes of coal for making the cement and you’re talking 150 tonnes of coal per turbine. Now if we are to build 350,000 wind turbines a year (or a smaller number of bigger ones), just to keep up with increasing energy demand, that will require 50 million tonnes of coal a year. That’s about half the EU’s hard coal-mining output.

**Public Need:** The keystone to the approvals for development of the LEEDCo/Icebreaker hinges on Public Need. Before you bite hard on that

lump of coal, a reminder from [US EIA](#) (Energy Information Administration, updated 2019):

- The Utica Shale accounts for almost all of the rapid increase in Ohio's natural gas production, which was more than 28 times higher in 2018 than in 2012.
- Ohio is the eighth-largest ethanol-producing state in the nation, supplying about 550 million gallons of the biofuel per year.
- Ohio has the seventh-largest crude oil-refining capacity in the nation, and the state's four refineries can process nearly 600,000 barrels of oil per calendar day.
- Ohio is the third-largest coal-consuming state in the nation after Texas and Indiana, and nearly 90% of the coal consumed in Ohio is used for electric power generation.
- Ohio's two nuclear power plants, located along Lake Erie, supplied about 15% of the state's net generation in 2018.

Replacing coal, nuclear and gas with wind turbines is inconceivable.

Currently Ohio has about 13,000 MW of wind power, producing about [1% of Ohio's electricity needs](#). Wind as we know, is intermittent, and has more than threatened to plunge entire geographies into darkness, sometimes pushing backup systems to the "brink."

[Germany was forced to recommission coal power plants](#) to simply keep the lights on. The country's green energy plans calls for the shut down of 30 such power plants by 2019.

Green energy approaches failed to meet Germany's stated energy goals, even after spending [over \\$1.1 trillion](#). The country's "Energiewende" plan to boost wind and solar production to fight global warming hasn't significantly reduced carbon dioxide (CO<sub>2</sub>) emissions and may have actually caused them to go up.

### **Conclusion**

Public pressure to end this ten-year story of corporate profit taking is mounting. Groups around the Cleveland area such as Save Our Beautiful Lake, and groups on the east end of the Lake watching proposals for that area, groups from PA and even further, are vigilant. Most are calling for an EIS (Environmental Impact Statement/Study), which scrutiny will certainly focus on the environmental hazards; and some are vigorously calling for,

after a ten plus year battle with LEEDCo, a Great Lakes Moratorium. It appears that the public is increasingly aware that it is not about six turbines; but a massive proliferation, with international participants, a “Saudi Arabia” of wind, and the emphatic response is “not here in this lake, nor any Great Lake.”

Icebreaker’s disingenuous assertions, promises of job chains (Ontario lost 300,000 manufacturing jobs in 8 years, mostly due to the higher cost of subsidized power, wind and solar), false promises of cleaner air, and zero application of even basic common sense environmental practices, presents us with a gathering storm. The assertions are unfathomable in the face of facts from not only North America, but Europe.

LEEDCo/Icebreaker would do well to abandon its hoped-for permit from the OPSB. The obstacles and problems have been pointed out repeatedly by experts, individuals, birding organizations, ecologists, in consultations, letters, formal legal presentations; enough to fill volumes. Its ten-year-long attempts to capture subsidies while overlooking viable and responsible care for the environment, added to the ladder of ongoing misrepresentations to the public, are egregious and unsustainable.

*The reality is potential harm of an epic scale. It is not about six: it is about the inauguration of a massive industrialization in 21% of the world’s fresh water.*

# Lake Erie Wind Turbines? Complaints Pour In (Part I: Overview)

By Sherri Lange -- October 18, 2016

*"Groups fighting any industrialization of the Lakes ... are requesting that federal funding for this expensive boondoggle, estimated to eventually run up to \$125 million, or about \$25 million for each turbine, be immediately truncated, and that a complete audit of existing monies granted be undertaken with fulsome reporting to taxpayers."*

*"There is absolutely NOTHING ecologically friendly about an industrial wind turbine. It is designed for one thing: profits."*

The Icebreaker Windpower project, proposed by the Norway-based [Fred. Olsen Renewables](#), would be the first proposed freshwater wind turbine project in the United States. The proposal, however, is running into serious opposition from ratepayer, taxpayer, and environmental groups.

As an offshore project (six turbines about seven miles off the shore of Cleveland Ohio), it should be compared to the [\\$0.24/kWh](#) cost debacle of

Rhode Island's Deepwater Wind project that is about to begin production.

No matter how much the [American Wind Energy Association hypes](#), offshore wind adds a layer of cost to the already uneconomic onshore projects.

## Background

Al Isselhard of [Great Lakes Wind Truth](#), who has worked for years to protect the Lakes from industrialization, recently offered the North American Platform Against Wind Power his current assessment of the Icebreaker proposal. "We have to assume that LEEDCo, now the Icebreaker Windpower project with Fred Olsen Renewables of Norway, was completely unprepared to undertake the project of six turbines." He continued:

*Ironically, even if they had done the proper homework, it still would not be and IS not, a viable project. Where is the update on this homework? Where are the deficiencies and omissions remediated? This project is the same project, and public attention needs to highlight the unbearable cost of a so called demonstration project. If I build an 8 x 10 shed, I need a permit. Where is the permit for the digging that is now taking place in Lake Erie?*

Mysteriously, without permits in place, the US's first freshwater wind turbine proposal [has received another dollop of federal money: \\$40 million.](#)

Groups fighting any industrialization of the Lakes such as Great Lakes Wind Truth and [North American Platform Against Wind Power](#) (NA-PAW ), are submitting letters to the DOE Colorado Office as quickly as possible. Some are requesting that federal funding for this expensive boondoggle, estimated to eventually run up to \$125 million, or about \$25 million for each turbine, be immediately truncated, and that a complete audit of existing monies granted be undertaken with fulsome reporting to taxpayers.

The proposed industrialization is being hyped as the beginning of a proliferation in the Lake of up to 1,700 turbines. [US Representative Marci Kaptur](#) refers in various media pieces to a “wind corridor” running “from Buffalo to Erie to Toledo and extending points west and east.” (One almost wishes this grotesque whole were on paper in order to cause an environmentalist revolt from lake to shining lake.)

### **Siting Deficiencies**

Formerly known as LEEDCo project, Icebreaker comes under the jurisdiction of the [Ohio Power Siting Board](#) (OPSB). **Two years ago, the OPSB identified some 14 omissions, errors, and deficiencies in the Lake Erie application. We opponents of the project cannot locate any remission or correction of those deficiencies.**

Some of the deficiencies for the LEEDCo project noted by the OPSB are:

- Ecological impacts studies for during construction and during operation

- Ice throw. Describe the potential impact from ice throw at the nearest properly 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
- 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
- An up to 10-year survey of projected population within 5 miles of the project site (which includes transmission lines and substations) "The applicant shall provide existing and ten-year projected population estimates for communities within five miles of the proposed project area site(s)."
- Studies of the technical data needed for lakebed topography and geography
- Traffic impact studies during construction and maintenance

Offshore wind has environmental issues that reflect its energy sprawl.

There is also the issue of [end-of-life decommissioning](#), as Kent Hawkins has discussed. Part II tomorrow will discuss a number of hazards from offshore turbines as proposed in this project.

# SUZANNE LETTER TO MARY MERTZ, DNR, FROM SUZANNE ALBRIGHT

<http://greatlakeswindtruth.org/cleveland-leedco/letter-to-mary-mertz-dnr-from-suzanne-albright-re-icebreaker/>



Endangered Piping Plover

## **Letter to Mary Mertz, DNR from Suzanne Albright, re Icebreaker**

- **CLEVELAND LEEDCO, LETTERS TO THE DOE AND OPSB RE LEEDCO**

Endangered Piping Plover, credit Shutterstock

### On the Shores of Lake Erie, Endangered Birds Catch a Lucky Break

Good Afternoon Director Mertz and Assistant Director Gray,

My name is Suzanne Albright, and I am writing from my home on the south shore of Lake Ontario west of Rochester, NY. As you can see, I am not a resident of Ohio, but do not believe that excludes me from being entitled to share in strong opposition to the Icebreaker Wind project proposed for the waters of Lake Erie. As part of the greatest fresh water system on earth, the Great Lakes are shared by many millions of us in two countries.

The water of these Great Lakes belongs to all of us, and in fact is held in public trust by the terms of the Public Trust Doctrine. As a member of that



public, I accept the responsibility of speaking for and protecting those species who are unable to protect themselves from unanticipated harm and death as a result of human greed and ignorance. Understanding that those terms might be offensive to some, I stand by them. The evidence regarding the environmental damage, the lack of efficiency, and the negative economic impacts of industrial wind energy is mounting and overwhelming. But for the purpose of this letter, I will focus on a few of the environmental impacts.

I have attached an article that I wrote in March 2018 for the Western Cuyahoga Audubon Society, "Flying Animals Deserve to be Safe Over Lake Erie". In fact, I was solicited by the WCAS to write the article, but once submitted, they chose not to use it. Perhaps the information and data was too damning for WCAS members who continue to believe the fallacy regarding "clean and green" wind energy. The information in that article has not changed since written one year ago, and neither has the fact that there has still not been a requirement for Icebreaker owner(s) to supply an Environmental Impact Statement (EIS). That fact remains a mystery to many people, but for me it is irrelevant. Given the indisputable information in my article, there could be no reliable evidence to support a claim of no significant environmental harm. The bird (including raptor), bat, waterfowl, and even butterfly carnage that will occur if this and future projects are built in Lake Erie will be staggering, irreversible, inhumane, and even polluting.

In addition, pollution and also human danger will likely result when a turbine in the lake spins out of control or is struck by lightning during a strong nor'easter. The quote below is taken from an article regarding industrial wind turbine fires that was published in the January edition of North American Clean Energy Magazine, Volume 13, Issue 1:

"According to researchers at the University of Edinburgh, the numbers are grossly under-reported by the wind industry. "Researchers carried out a global assessment of the world's wind farms, which amount to an estimated 200,000 turbines. The team, from Imperial College London, the

University of Edinburgh and SP Technical Research Institute of Sweden, estimate that more than 117 turbine fires take place each year.”<sup>1</sup>

Wind industry leaders tend to dispute this information, but there is currently no international regulatory organization requiring them to report turbine accidents and failure. There are, however, various organizations committed to tracking and reporting turbine accidents. Caithness Windfarm Information Forum in Scotland is one such organization. From 2000 through September 30, 2018 (the end of the third quarter of 2018) Caithness has reported 330 turbine fires, including 19 so far in 2018<sup>2</sup>. Although lower than the 117 annually claimed by researchers at Imperial College London, the number is large enough to reinforce the need for regulatory oversight. Caithness derives information from accident reports, insurance documents, and news articles.

### **Why is accurate reporting of great importance?**

Public safety. Industrial wind projects are often built in rural communities, on farms leased to wind developers by farmers, to boost their income. Setbacks from homes and other dwellings, property lines, and neighboring homes and properties are determined by local governments (these vary widely around the world). Toxic smoke from burning fiber composite blades, lubricating oils, and other turbine components are detrimental to the health of people and animals. Turbine blades are currently approaching 288 feet in length (again, composed of glass and carbon fiber composite). When older, fiberglass blades burn, they release tiny airborne particles, which are easily inhaled and deposited in the lungs, irritating the capillaries. Over time, this irritation leads to scarring that causes permanent damage. The National Institute of Occupational Safety and Health cites studies showing that these inhaled particles could damage cellular mechanisms and DNA, which could further promote the growth of cancer cells.<sup>3</sup> Similar problems arise when disposing of these blades at the end of their lives. Research found that, “Combustion of GFRP (glass fiber reinforced polymer) is especially problematic because it can produce toxic gases, smoke, and soot that can harm the environment and humans. Carbon monoxide and formaldehyde have been reported as residue from thermal degradation of epoxy resin. Another residue is carbon dioxide, which poses concerns regarding greenhouse gas

emissions.<sup>4</sup> In California, exploded turbine blade pieces were reported to have flown 4,200 feet. Imagine this scenario with flaming blade debris. Further, due to turbine height, fire brigades are unable to reach the flaming gear boxes, nacelles, and enormous blades. Widespread flaming debris is also difficult to contain. Often, the only option is to stand by and watch these fires burn.”

Having written that article, I reviewed multiple turbine fire reports during my research. In doing so, I tried to imagine a turbine fire in Lake Erie during a strong nor’easter. It would likely be impossible to extinguish. The resulting products of combustion, the flying parts including burning blades, the water pollution and debris, possible human injury and more are NOT worth the risk.

In conclusion, I ask that you refuse to allow this project to be built. The risks to animal and human health and safety and to the general health of the Great Lakes is on the line. Our deteriorating ecosystem cannot afford the destruction and devastation that will undoubtedly result.

Respectfully,

Suzanne Albright

Rochester, NY

Principal and Founding Member, Great Lakes Wind Truth

# OFFSHORE WIND IS NOT ALL ITS CRACKED UP TO BE: now they want to bring it to the US; don't let Vineyard Wind or ICEBREAKER, OHIO, be the US example of a failed experiment

- Unreliable
- Often poorly designed
- Cabling problems
- Dangerous to workers
- Technology failures
- Collision casualties, as flying creatures deem them to be resting places on long migratory paths
- Damage to sub surface organisms of all kinds: ongoing not just during construction, when dB can reach 110 or more
- Costing massive subsidies that are never really attached to real production and meaningful electrical output
- EXPENSIVE!!! BEYOND IMAGINING \$\$\$\$\$\$

## FIRST EXAMPLE BARD WIND

From 2014: Renewable energy mega flop for German's largest offshore wind park: hasn't delivered any power since March

<http://notrickszone.com/2014/07/31/renewable-energy-mega-flop-germanys-largest-offshore-windpark-hasnt-delivered-any-power-since-march/>

### ***Eighty 5 MW turbines sitting idle***

Experts believe the problem could be in the [HVDC](#) transmission, which could be fault-prone. [Ingenieur.de](#) writes that the **mega-sized wind park Bard 1 consists of 80 units 5-MW turbines**. The immense losses incurred due to the shutdown with each passing aren't difficult to fathom.

*Ingenieur.de adds that the engineers don't appear to be anywhere close to a long-term solution:*

### ***Poorly engineered***

*Ingenieur.de writes, however, that it is unlikely that the problem has to do with the HVDC technology, as it is successfully being used all over the world. The engineering magazine believes the problems likely stem from the technology that is placed just before the HVDC platform, which “was designed by Bard itself, and not by an experienced company like ABB, Siemens or General Electric.” (One can almost sense the schadenfreude).*

*Ingenieur.de notes that **Bard is now financially insolvent**, and that in the meantime grid operator TenneT is scrambling to find a solution, hoping the faults will be rectified in August.*

***Anyone following Germany's man-on-the-moon-scale offshore windpark project will tell you that it is currently quite a huge mess. So much so that things can only get better.***

<http://coastalenergyandenvironment.web.unc.edu/2018/07/16/bard-offshore-i-wind-farm-a-case-study/>

### **More on BARD ONE, Germany**

#### **Environmental Impact:**

In terms of environmental conditions, the turbines at BARD Offshore I have many of the same effects as any other wind farm. The construction stage of the project lasted for more than 2 years, leading to decent exposure to marine organisms (BARD Offshore 1 Offshore Wind Farm). As opposed to the classic monopile configuration, each turbine now calls for three steel beams to be pile driven into the ocean floor, increasing overall surface area affected. This stage of the offshore wind project would constitute the largest concern in terms of underwater noise as the pilings would have to be embedded into the sea floor. This process was expected to produce more than the ambient noise level of **105 dB anywhere within a 20 km radius**. Based on the environmental impact assessment conducted by Arcadis, the decommissioning phase would present almost identical impacts as the construction phase but at considerably lower intensity.

Once operational, the issue of underwater noise would still exist but to a lesser extent, with variations in marine organism reactions that is not possible to project with accuracy (Environmental Impact Assessment – Offshore North Sea Power Wind Farm, 2011). Collision casualties from bats or sea birds would, similar to any onshore wind farm, be an issue worth exploring, especially given the massive amount of surface area consumed by BARD Offshore I. Even without direct strikes, an offshore wind farm can affect both fish or bird migration patterns and the cumulative impacts between multiple wind farms can expose a synergistic relationship (Vaissiere et al., 2014). Vaissiere et al. inquires about the environmental impact assessment at its core due to the fact that despite impacts on marine organisms, biodiversity offsets haven't yet taken hold. If carbon offsets are able to compensate for the weaknesses of fossil fuel energy generation, then EIAs should exercise the power to mitigate and make up for the shortcomings of offshore wind energy.

<https://www.renewablesnow.com/news/unicredit-seeks-buyer-for-400-mw-german-offshore-wind-park-report-604464/>

**FOR SALE!**

*March 9 (Renewables Now) - A unit of Italian lender UniCredit SpA (BIT:UCG) is putting up for sale 100% of the 400-MW Bard Offshore 1 wind farm in the German portion of the North Sea, two informed sources told Bloomberg.*

*According to the insiders, JPMorgan Chase & Co is providing advice with regard to the sale process. One of the sources has noted that a transaction could fetch more than EUR 1 billion (USD 1.2bn). It may attract institutional investors, the report adds.*

Is this the second flip?

*UniCredit Is Said to Plan \$1.2 Billion Sale of German Wind Farm Anna Hirtenstein March 08 2018, 5:51 AM March 12 2018, 7:48 PM (Bloomberg) -- A subsidiary of UniCredit SpA is working on the sale of its Bard Offshore 1 wind farm in Germany's portion of the North Sea, a transaction that may be valued at more than 1 billion euros (\$1.2 billion), people familiar with the deal said.*

Read more at: <https://www.bloombergquint.com/business/unicredit-is-said-plan-1-2-billion-sale-of-german-wind-farm#gs.17v36g>

*And it looks like BARD1's problems aren't anything new (from about 1 and 1/2 years ago)... <http://www.breitbart.com/london/2014/09/12/flagship-german-offshore-wind-farm-project-humiliated-by-technical-faults/> "The difficulty facing engineers is how to get the electricity generated back to shore. So far, every attempt to turn on the turbines has resulted in overloaded and "GENTLY SMOULDERING" offshore converter stations."*

*Maybe if they tell us the bad thing in a good way, it won't be as upsetting? ...like "Hi, Dave, I love your new house. The flames against the night sky were spectacular."*

**PROFOUND COMMENT HERE PLEASE READ**

[Mike Haseler \(Scottish Sceptic\)](#) 4. February 2016 at 8:22 PM | [Permalink](#)

When I worked in the wind industry I tried to encourage the company to move into offshore **wind maintenance** – because it was obvious that those involved had no practical idea how to maintain these brutes **but also that the offshore environment would cause far more failures even than the massive problems onshore.**

The response: we are building a new massive ship – sure that will really be useful!!!

**[GERMANY: Construction has been halted at the 400MW Bard Offshore 1 after the death of an industrial climber](#) while working on the project.**

## Germany - Bard Offshore 1

*Located about 130 kilometres off the German coast in the North Sea, BARD Offshore 1 is the world's remotest offshore wind farm.*

*The development consists of 80 wind turbines rated at 5 megawatts each, and the total maximum power of 400 megawatts makes it the largest offshore wind plant to supply power to the German grid. **The construction of the farm began in March 2010 and was finished in July 2013, with the official inauguration taking place in August of the same year. Unfortunately, a series of setbacks - including a fire at a transmission station in 2014 - delayed the commissioning of the farm.***

**FRED OLSEN RENEWABLES** PRODUCED THIS COMPLEX AND THREE YEAR FAILED INSTALLATION AND LATE INAUGURATION, BARD ONE.

<https://windcarrier.com/blog/case-studies/bard-offshore-i/>

The full scope of work supplied by Fred. Olsen Windcarrier and related companies included:

- Engineering and manufacturing of grillage
- Transport and installation of WTGs
- Marine engineering
- Lift plans
- Lift tools for all turbine components
- Offshore construction management
- Lift supervisors
- WTG technicians
- Offshore HSE representative
- [Crew transfer vessels](#)

Read more: <http://www.youris.com/energy/gallery/gone-with-the-wind-farms--six-of-the-worlds-top-offshore-arrays.kl#ixzz5iMB0rhaX>

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## SECOND EXAMPLE    RIFFGART WIND “PARK” 2016

<http://notrickszone.com/2016/02/04/unreliable-power-major-technical-failures-sideline-another-offshore-wind-park-adding-to-exploding-costs/>



## UNRELIABLE POWER MAJOR TECHNICAL FAILURES SIDELINE ANOTHER OFFSHORE WIND PARK ADDING TO EXPLODING COSTS

I've [reported earlier on Germany's BARD 1](#) offshore engineering fiasco, where technical problems continue plaguing the wind park and has yet to deliver power on shore to reach markets. Even today the situation there remains unclear.

Moreover, just [days I ago I reported](#) how an expert institute confirmed that offshore wind park installations are highly vulnerable to the harsh sea conditions and plagued by stratospheric maintenance costs.

Well there is another major wind park that is now struggling with major technical problems and thus will not be able to deliver power until at least (optimistically) April.

*The giant offshore Riffgat wind park hasn't delivered power since November of last year, so reports [NDR German public broadcasting here](#). Hat-tip Gerti at FaceBook*



North German NDR public broadcasting reports on the shut down of the Riffgat offshore wind park, located in the North Sea. Image source: [www.riffgat.de/riffgat/windpark/](http://www.riffgat.de/riffgat/windpark/)

## ***Failed underwater power transmission cable***

**According to NDR, the power supply has been interrupted due to a failed underwater power transmission cable** that serves to deliver the power onshore. That means a loss of 7 million euros per month in revenue, which the consumers will have to pay because Germany's feed-in act required power companies to pay for the electricity produced by win parks even if it is never delivered. If that sounds strange, it is so because the market-hostile law is the sort of thing one would find only in old communist regimes.

**The NDR clip reports that the reason for the failed cable is unclear, and could be caused by an error during installation or during the production itself.** The cable fault itself is 22 kilometers from the wind park, just east of Borkum Island. Normally repairing the cable would be a routine matter, but there's one big problem: **the seabed is riddled by old WWII munitions, which first need to be removed before repair works can start.**

The [Riffgat website here says](#) the wind park consists of 30 units 3.6 megawatt-class wind turbines located some 15 kilometer away from the North Sea island of Borkum near the Netherlands. Each wind turbine has a 120 meter rotor diameter and the hub height is 90 meters. The turbines are firmly anchored by 70-meter steel bases rammed 40 meters into the seabed.

The Riffgat wind park also has a transformer station that feeds the power to the seabed transmission cable, which in turn delivers the converted power on shore. The Riffgat wind park is operated by Oldenburg-based power company EWE.

*The NDR clip reports that EWE is not really too concerned about the technical problem and that it is not receiving 7 million euros worth of power each month.*

*This is so because grid and transmission cable operator Tenet is required to pay EWE the money whether the power gets delivered or not.* And where is Tenet going to get that kind of money?

*You guessed it! The costs, like everything else with the German Energiewende, just get passed on to the lowly consumers.*

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<https://thehill.com/blogs/congress-blog/energy-environment/297456-the-problem-with-off-shore-wind-energy>

# The problem with off-shore wind energy

BY DAN ERVIN — 09/23/16 02:35 PM EDT <sup>13</sup>

THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HILL

How will America meet the growing demand for clean energy to supply households and businesses and do it at a price people can afford?

**Not with offshore wind power, a source that isn't even remotely economically viable.** Although the level of offshore wind power is less volatile than land-based systems, **its output is very volatile.** This volatility is a result of the inconstancy of the wind speed. As a result, offshore wind needs to be cheaper than power from natural gas plants and nuclear-generated electricity to be economically viable. Instead, it is almost certain to be more expensive and less reliable. If not for the \$23 per megawatt-hour federal Production Tax Credit for wind power and state mandates requiring the use of renewable energy, plans for offshore wind turbines would come to a halt.

Offshore wind power sounds great until one gets into the economic and reliability details. **There is a mistaken belief held by some politicians that unlimited supplies of clean energy will be produced from offshore wind turbines in the Atlantic, Great Lakes and the Pacific Northwest, so that serious planning for secure supplies of energy, like molten salt reactors, need not be undertaken.** Yet the ability to generate large amounts of power from offshore wind is more promise than reality, and any presumed savings – on the scale promised by wind power's more zealous advocates – are more ideology than reality.

According to a Department of Energy study of the potential for offshore wind energy, there is more than 320,000 square miles of water off U.S. coasts that could support approximately 2,000 gigawatts of capacity. That's considerably more than the 1,100 gigawatts of electricity-generating capacity currently

available in the U.S. However, the average capacity factor for off-shore wind is approximately 40 percent. This will impact the reliability of this potential source and limit its potential.

Offshore wind is potentially an enormous supply of energy, except for the fact that no one has come up with a practical and affordable way to capture it. At present, there is zero electricity being produced from offshore wind in the United States. In December, this country's first offshore-wind power is expected to flow into the electric grid from five wind turbines off the coast of Block Island near Rhode Island. The turbines are slated to begin operating by the end of this year, but that's the extent of offshore wind power in the U.S. Each of the giant turbines – at a height of 589 feet, they tower over even large vessels and can be seen from shore – is estimated to produce 125,000 megawatt-hours of electricity annually, which is enough to power 17,000 homes.

Deepwater Wind, developer of the Block Island turbines, estimates that the cost to build them was \$300 million. Massachusetts, New York and other Northeastern states are watching to see how it all turns out. New York recently adopted a mandate requiring the state to get 50% of its electricity from renewables by 2030. Carbon mitigation was the driving force behind the mandate. But obtaining renewable energy from subsidized wind power is at best a counterproductive policy that's led to the premature closing of several nuclear plants in California, Vermont, Massachusetts and Wisconsin – and has raised carbon emissions in the process. And it's going to keep happening unless there are energy policy changes.

Clearly, only the fossil-fuel industry benefits if we shut down one reliable zero-carbon source of power and try to replace it with an unreliable emission-free source. The result is increased reliance on auxiliary power from natural gas and coal plants because renewables can't meet all or even most of our electricity needs. Currently solar and wind combined supply only 7% of the nation's electricity and it is less in Maryland. In July, approximately 3.3 percent of Maryland's electricity came from solar and wind power while 38.9 percent came from nuclear. Nuclear power is the largest source of carbon-free electricity supplying about 60% of the carbon-free electricity in the U.S.

Yet state renewable portfolio standards require utilities to bring renewable capacity into their grids no matter how much it depresses markets. In fact, during times of overproduction, nuclear plants have to pay to send power to the grid.

Mind you, there wouldn't be a problem if utilities could retire fossil-fuel plants, but those plants are needed to provide back-up power on days when the wind isn't blowing and the sun isn't shining. Which is why state mandates for renewable power are nonsensical.

Something else: natural gas plants have a lifetime of 30 to 40 years. With license renewal, nuclear plants like Calvert Cliffs operate for 60 years, and some reactors might be able to supply power for 80 years or more. By contrast, wind turbines have a lifetime of 15 to 20 years.

If offshore wind turbines are built up and down the Atlantic seaboard from Rhode Island to South Carolina, in about 20 years from now they'll need to be replaced. But one large new nuclear plant could supply all of that emission-free energy from a single site. And it won't need a subsidy or government mandates.

*Dan Ervin Ph.D. is Professor of Finance at Salisbury University's Perdue School of Business.*

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## COST OF OFFSHORE WIND

### Offshore Wind Energy:

A Very, Very Expensive Electricity Source Offshore Wind Is Very, Very Expensive • According to the Energy Information Administration (EIA), offshore wind is 2.6 times more expensive as onshore wind power and is 3.4 times more expensive than power produced by a natural gas combined cycle plant. • On a kilowatt hour basis, offshore wind power is estimated to cost 22.15 cents per kilowatt hour, while onshore wind is estimated to cost 8.66 cents per kilowatt hour, and natural gas combined cycle is estimated to cost 6.56 per kilowatt hour. • Overnight capital costs (excludes financing charges) are 2.8 times higher for offshore wind than onshore wind power. According to EIA, an offshore wind farm is estimated to cost \$6,230 per kilowatt, while those costs for an onshore wind farm are estimated to be \$2,213 per kilowatt.



## Power Siting Board

John R. Kasich, Governor  
Todd A. Snitchler, Chairman

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Director, Ohio Development Services Agency  
Director, Ohio Department of Health  
Director, Ohio Department of Natural Resources  
Director, Ohio Department of Agriculture  
Public Member  
Ohio House of Representatives  
Ohio Senate

Executive Director  
Kim Wissmar

April 7, 2014

David E. Nash, Esq.  
Andrea M. Salimbene, Esq.  
McMahon DeGulis LLP  
1335 Dublin Road, Suite 216A  
Columbus, Ohio 43215

**Application for Certificate of Environmental Compatibility and Public Need  
LEEDCo-Icebreaker Wind-Powered Electric Generation Facility  
Case Number 13-2033-EL-BGN**

Dear Mr. Nash:

This letter is to inform you that the above referenced application, filed with the Ohio Power Siting Board (Board) on February 7, 2014, and supplemented on February 18, 2014, has been found to not comply with Chapters 4906-01, et seq., of the Ohio Administrative Code (OAC). This means that the Board's Staff has not received sufficient information to begin its review of this application.

The following is a listing of insufficiencies found during the Board Staff's completeness review of this application.

1. **4906-17-05(A)(1)(a)**, Provide a map of proposed facility. Provide maps illustrating location(s) of the Operations and Maintenance building, and permanent meteorological towers.
2. **4906-17-05(A)(1)(c)**, Geography and topography mapping. Provide on maps the location(s) of natural gas and hazardous liquid pipeline(s) within the project area and the distance to the closest wind turbine. Provide on maps the transportation routes that will be utilized and location(s) of staging area(s).
3. **4906-17-05(A)(4)(a)(b)**, Technical Data. Provide detailed information used to determine the suitability of the lakebed for supporting installation and long-term stability of the wind turbines at the proposed turbine locations. See attached ODNR letters for more specific details concerning ice ridge formations.
4. **4906-17-05(A)(5)(b)**, Hydrology and wind. Provide an analysis of the prospects of high winds for the project area, including the probability of occurrences and likely consequences of various wind velocities, and describe plans to mitigate any likely adverse consequences.



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Ohio House of Representatives  
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Kim Wissman

5. **4906-17-05(B)**, 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.
6. **4906-17-05(C)(2)(c)**, Turbine manufacturer's safety standards. Provide a complete copy of the manufacturer's safety manual or similar document.
7. **4906-17-05(D)(2)(b)**, System studies. Provide the PJM system impact study.
8. **4906-17-08(A)(1)**, 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.
9. **4906-17-08(A)(2)(c)**, 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. See attached ODNR letters for more specific details noise impacts to aquatic species.
10. **4906-17-08(A)(4)**, 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. See attached ODNR more specific details on structure marking, lighting, and recreational boating community comments.
11. **4906-17-08(A)(5)**, 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.
12. **4906-17-08(B)(1)(c)(d)(e)**, Ecological Impacts. Provided 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; and, a list of major aquatic



## Power Siting Board

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Kim Wissman

species. See attached ODNR and USFWS letters for more specific details on protocols and comments.

13. **4906-17-08(B)(2)(a)(c) and 4906-17-08(B)(3)(a)(c)(d)**, 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. Describe any plans for post-construction monitoring of wildlife impacts. See attached ODNR and USFWS letters for more specific details on these topics.

14. **4906-17-08(C)(1)(b)**, Land use. Provide the number of residential structures within one thousand feet of the boundary of the proposed facility, and identify all residential structures for which the nearest edge of the structure is within one hundred feet of the boundary of the proposed facility. The map provided does not satisfy this requirement.

Once the materials listed above are received, Staff will conduct a review to determine compliance with Chapters 4906-01, et seq., of the OAC. If the application is found to be in compliance, at that time, a subsequent letter will be sent outlining instructions on serving the completed application, filing proof of service, and will list the necessary application fee.

Please be reminded that under Section 4806.04 of the Ohio Revised Code (ORC), the applicant shall not commence to construct any portion of the facility prior to obtaining a certificate from the Board.

If you have any questions regarding the above, you may contact Klaus Lambeck at 614-644-8244 or Don Rostofer at (614) 728-3783.

Sincerely,

Todd Snitchler  
Chairman  
Ohio Power Siting Board

cc: Lorry Wagner, President of LEEDCo

Attachments: 1. ODNR Letter, dated April 7, 2014  
2. USFWS Letter, dated March 24, 2014, RE: Icebreaker Wind Facility

180 East Broad Street  
Columbus, Ohio 43215-3793

(866) 270-6772  
www.OPSB.ohio.gov





# Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZIEHLINGER, DIRECTOR

**Office of Real Estate**  
**Paul R. Baldridge, Chief**  
2045 Morse Road – Bldg. E-2  
Columbus, OH 43229  
Phone: (614) 265-6649  
Fax: (614) 267-4764

April 7, 2014

Don Rostofer  
Ohio Power Siting Board  
180 East Broad Street  
Columbus, Ohio 43215-3793

**Re: 14-104: Icebreaker Wind Facility – Lake Erie Energy Development Corporation (LEEDCo.) – Case No.: 13-2033-EL-BGN**

**Project:** The project involves the construction of a wind facility in Lake Erie. The proposal calls for 6 Siemens SWT 3.0-113 wind turbines for a total of 18 MW.

**Location:** The project is located in Lake Erie, Cleveland Township, Cuyahoga County, Ohio. The proposed locations for the turbines are in grid cells 25-116, 25-117, 25-132, and 25-148. The proposed transmission line will also include impacts to grid cells 25-149, 25-164, 25-165, 26-151, 26-166, 26-167, 26-168, 26-183, 26-184, 26-185, 26-200, and 26-201.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended: 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

**Fish and Wildlife:** The Division of Wildlife (DOW) offers the following comments.

During 2009, LEEDCo coordinated with the ODNR Division of Wildlife (DOW) on pre-construction wildlife surveys. In August 2009, ODNR DOW provided pre-construction bird and bat survey recommendations. These survey recommendations provided in 2009, included surveys assessing raptor use, raptor nest monitoring, waterfowl use, bat acoustic surveys and radar monitoring using two marine radar units simultaneously. On September 30, 2010 the ODNR DOW also provided LEEDCo with open water sampling requirements for four proposed locations. The aquatic sampling protocol included fish hydroacoustic monitoring, fish trawls, fish gill netting, zooplankton sampling, water chemistry analyses, substrate mapping, aerial surveys of boat usage, fishing pressure, and benthos surveys. Since these initial recommendations, the Applicant has altered the boundary of the site and scope of the proposed project. Moreover, additional wildlife data within the project area has been obtained through the ODNR DOW offshore pelagic bird surveys and standard annual fisheries and fish community surveys. Consequently, the ODNR DOW provided on August 15, 2013 revised sampling requirements for aquatic surveys.

Despite this early coordination with the DOW, it appears that the OPSB application submitted is incomplete and the requested pre-construction surveys are incomplete. Results from standardized pre-construction surveys on birds and bats, and aquatic resources in the proposed project area are meant to document the level and timing of species activity, diversity and abundance of species, and to characterize

the physical characteristics at the proposed location. Results of these studies are used by ODNR DOW, to provide biological assessments of perceived risks that a proposed turbine facility may have either directly through mortalities or indirectly through avoidance behaviors, on Ohio's fish and wildlife resources. The following comments are being provided pursuant to Ohio Revised Code (ORC) §§ 1531. and 1533.08 which provides the ODNR DOW, under its jurisdiction, the authority to protect, propagate, manage and preserve the game or wildlife of this State and to enforce, by proper actions and proceedings, the laws of the State of Ohio. This letter does not fulfill the Applicant's need to coordinate with ODNR DOW regarding avoiding impacts to Ohio's fish and wildlife resources, any proposed minimization strategies, mitigation efforts planned, as well the post-construction monitoring at the proposed facility. Prior to issuance of an OPSB Certificate, it is ODNR's recommendation that LEEDCo sign ODNR DOW's *Cooperative Wind Facility Agreement*. If LEEDCo elects to not sign this agreement, the company will assume the liability of the potential risks that the Icebreaker Wind Facility operating turbines may have on birds and bats, as well as the impact of construction on any fish and wildlife species. Additionally, it is recommended that coordination occur with our partnering agency, USFWS Ohio Field Office, specifically concerning the Migratory Bird Treaty Act (16 U.S.C 703-712; MBTA), the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1544, 87 Stat. 884; ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d; BGEPA). The ODNR DOW provides the following specific comments regarding the completeness of LEEDCo's application.

#### Bird and Bat Assessments

LEEDCo has conducted minimal bird and bat assessments. The DOW and USFWS have discussed with the Applicant questions and concerns in regards to the "Spring-Fall 201 Avian and Bat Studies Report Lake Erie Wind Power Study" which have not been addressed to date. These questions are essential in our assessment of the validity of the methodologies that were conducted to date. More specifically our questions and request for additional data with regards to the radar study were included in a letter from Jeff Gosse at the USFWS on November 15, 2013. Specifically the DOW requests the following:

1. To assess the degree of interference related to weather, side-lobes, building interference on the crib, waves, insects, etc. that can influence the target counts that were determined in the LEEDCo assessment, the DOW requests the clutter maps used at each radar site for both the VSR and HSR antennas and a series of TrackPlots of each sites and antenna.
2. Page 12 and 17 of the report indicate "clear air"—how was this determined?
3. Page 7, the orientation of the VSR was indicated to be east-west which may reduce the radar's ability to track targets moving north, thus it was recommended that the orientation be slightly offset.
4. What were the methods used to reduce insect clutter? The application suggests that there wasn't much insect clutter (page 8-10) but later contradicts this statement.
5. There was a contradiction in what the VSR offset was (Page ii and Page 11). Please provide the offset parameters.
6. There was a contradiction in the onshore survey dates; please provide accurate dates.
7. What was the total number of days with useable data when offshore (both 11 and 13 were indicated)?
8. How were the initial settings established? Did they remain constant? If not what were the adjustments and why? Were any settings changed between spring 2010 onshore, offshore, and fall 2010 offshore?

9. Please provide specific data from both radars (VSR and HSR). If one radar had issues (insect, wave clutter), was the other radar removed from the dataset during the time period?
10. The report provides a daily and seasonal mean TPRS/heights/ percentages, which may mask times of greater risks. Please provide plots with timelines plotted in hourly increments to assess this.
11. Please provide directional graphs and data separated by four time periods to include dawn, dusk, and night.
12. Please provide the medians and 50 m band graphs of heights of targets rather than the means.
13. Please narrow the categories for targets within the RSZ.
14. Unfortunately, data that was collected during high winds was removed from the report. Bird migrations can occur during periods of high wind, as suggested by USFWS data.
15. Were virga rain tracks included? If so, this may bias the counts and height estimates. If removed, please provide how they were identified and removed.
16. Why was 5.4 m subtracted from the altitude measurements? Is this the height of the crib? If so, then 5.4 m should be added.
17. What was the timeline for the acoustic data? Has this been correlated with the radar results?
18. Page 63 suggested that the crib lighting may have attracted bats (and insects), thus the potential reasoning for the number of bat calls. The number of bat passes from the acoustic data (38.0 passes/detector-night) is nearly double that of any other pre-construction surveys conducted in Ohio.
19. The boat surveys monitoring birds appear to be biased relative to the results provided through the acoustic surveys.
20. It was suggested that risks to birds migrating in the project area were minimal. Based on the pelagic bird surveys conducted by the Division of Wildlife during 2011 and 2012, the results suggest that the area proposed is within areas of larger numbers of ring-billed and herring gulls. Both migrating water birds and waterfowl may be impacted by this wind facility through direct impact as well as displacement.

#### Aquatic Resources

As detailed above and suggested in the application, DOW previously provided LEEDCo with aquatic sampling protocols for use in developing information to assess the suitability of the project with respect to impacts to fisheries and fish communities. These included surveys to assess the fish and lower trophic level community composition and abundance (fish hydroacoustic sampling, fish trawling, fish gill netting, benthic invertebrate sampling, and zooplankton sampling) physical characteristic surveys (water chemistry, and substrate mapping) and fisheries surveys (aerial creel surveys) at the proposed project location. These pre-construction surveys are intended to document the level and timing of species activity, diversity and abundance of species, and to characterize the physical characteristics at the project location. Subsequently, LEEDCo was provided with a revised Aquatic Sampling Protocol in August 2013, due to changes in the nature of the project. These revised protocols included surveys to assess fish and lower trophic level community composition and abundance (fish hydroacoustics sampling, fish trawling, benthic invertebrate sampling, larval fish sampling, benthic invertebrate sampling, zooplankton sampling, and phytoplankton

sampling), physical characteristics (water chemistry, substrate surveys, and hydrodynamic surveys), fish behavioral surveys (acoustic telemetry, fish hydroacoustic sampling, and noise assessment surveys), and fisheries surveys (aerial creel surveys) at the proposed project location. At this time, no aquatic assessment surveys have been provided to ODNR DOW for evaluation of the above characteristics, thus this application should be deemed incomplete.

Specific ODNR DOW comments on what was presented related to aquatic resources include the following:

- 1) 4906-17-08 Social and Ecological Data Section A.2.c 2<sup>nd</sup> paragraph (pg 54) – “This operational noise, while it may be audible to some fish in the near vicinity to the turbine towers, is not expected to be sufficiently loud to result in substantial behavioral changes or injury to fish species”. The presumption that the noise impacts to fish species will be negligible is not supported by scientifically collected data. The applicant provides no proof of negligible impacts. Additionally, the ODNR DOW Offshore Aquatic Sampling Protocol identifies noise impacts and requires sampling to quantify these; however, the applicant does not indicate that they will implement this sampling protocol to address this point.
- 2) 4906-17-08 Social and Ecological Data Section A.2.c 2<sup>nd</sup> paragraph (pg 54) – “For invertebrates, BelBner and Sorydl (2006) posed that colonization of wind turbines by invertebrates is an indication that noise and vibration do not have a significant adverse effect on invertebrates.” Again the presumption that noise impacts to benthic invertebrate communities in the project will be negligible is not supported by scientifically collected data. The Applicant provides no evidence of negligible impacts. Additionally, the ODNR Aquatic Species Sampling protocol identifies sampling requirement pre- and post-construction to quantify these effects; however, the applicant does not indicate that they will implement this sampling protocol to address this point.
- 3) 4906-17-08 Social and Ecological Data Section B.1.c (pg 56) – “LEEDCo’s surveys have focused on those organisms potentially placed at risk by the construction and operation of this project. Those animals include benthic (or sediment-dwelling) aquatic macroinvertebrates, and mobile terrestrial organisms.....include extensive discussion of aquatic and terrestrial life.....” The Applicant presents no information on the survey of animal life within the facility boundary in the application; therefore, this aspect cannot be evaluated by the DOW. Additionally, the Applicant’s presumption that only benthic aquatic macroinvertebrates are the only organisms potentially placed at risk is not supported by the guidance provided by ODNR DOW staff. The ODNR DOW Offshore Aquatic Sampling Protocol details survey design and data collection parameters that are necessary to evaluate risk of the project, but the Applicant has presented no information from these surveys nor indicated that they will implement this sampling protocol.
- 4) 4906-17-08 Social and Ecological Data Section B.1.e (pg 57) – “Economically valuable species are likely to be found in the Project Area, but it is not a rare habitat, nor is it likely a preferred habitat for any of these fisheries species.” The Applicant presented no analysis of habitat distribution at the Project Area; therefore, the presumption is not supported by data. The ODNR DOW Offshore Aquatic Sampling Protocol details survey design and data collection parameters that are necessary to evaluate impacts to habitat, but the applicant has presented no information from these surveys nor indicated that they will implement this sampling protocol.
- 5) 4906-17-08 Social and Ecological Data Section B.1.e (pg 57) – “Sensitive (T&E) species were evaluated in the Draft EA.....none of these species have been found in the Project Area.” The Applicant presented no data to indicate that there was an attempt to sample T&E species in the Project Area. The ODNR Offshore Aquatic Sampling Protocol details survey design and data collection parameters that are necessary to evaluate T&E species distribution in the project area,

but the Applicant has presented no information from these surveys nor indicated that they will implement this sampling protocol.

- 6) 4906-17-08 Social and Ecological Data Section B.2.a (pg 59) – “During cable installation, bottom sediment will likely become suspended within the water column, but impacts will remain local, short in short duration, and will have *de minimus*, unmeasurable environmental and ecological impact. Although a limited number of macroinvertebrates will likely be removed during the construction process, the effects will be minor and temporary. Fish will be affected by the short-term construction, but the effects will be temporary, localized, and small in scale.” The Applicant presents no analysis of construction impacts to fish and invertebrates in the area, therefore, the presumption is not supported by data. The ODNR DOW Offshore Aquatic Sampling Protocol details survey design and data collection parameters that are necessary to evaluate impacts fish and invertebrates, but the applicant has presented no information from these surveys nor indicated that they will implement this sampling protocol.
- 7) 4906-17-08 Social and Ecological Data Section B.3.a (pg 60) - The Applicant presents no analysis of operations impacts to the area, therefore, this presumption is also not supported by data. The ODNR DOW Offshore Aquatic Sampling Protocol details survey design and data collection parameters that are necessary to evaluate impacts physical habitat, but the applicant has presented no information from these surveys nor indicated that they will implement this sampling protocol.
- 8) 4906-17-08 Social and Ecological Data Section B.3.b (pg 60) - The Applicant presents no analysis of operations impacts to major species in the area; therefore, the presumption is not supported by data. The ODNR DOW Offshore Aquatic Sampling Protocol details survey design and data collection parameters that are necessary to evaluate impacts to major species, but the applicant has presented no information from these surveys nor indicated that they will implement this sampling protocol.
- 9) 4906-17-08 Social and Ecological Data Section B.3.d (pg 60) - The Applicant presents no detailed post- (or pre-) construction monitoring of wildlife impacts. The ODNR DOW Offshore Aquatic Sampling Protocol details pre- and post-survey design and data collection parameters that are necessary to evaluate impacts to wildlife, but the Applicant states that “construction and post-construction aquatics (sic) surveys to complement the pre-construction desktop studies” will be conducted.

#### Additional Comments

The Applicant did not provide any commitments to assess the potential impacts to wildlife and fisheries during the post-construction phase of development. DOW recommends that if the project becomes operational, that post-construction (as well as pre-construction) monitoring be conducted at the facility, and should be a condition on the OPSB Certificate of Operation. Several monitoring studies should be continued through the post-construction monitoring period. These studies will be used to assess potential behavioral changes in fish and wildlife due to the presence of wind turbines.

Post-construction monitoring of avian and bat strikes at off-shore wind facilities pose a unique challenge due to the lack of searchable area under the turbines. Currently, the only practical way of documenting strikes is through the use of thermal or infrared imaging. Units should be affixed to a random subset of turbines, but may include specific turbines in areas of concern if so noted by the ODNR DOW or USFWS based on pre-construction monitoring results. The number of turbines monitored will depend on the number of the turbines at the facility. Monitoring for bird and bat mortality should be conducted continuously from 1 April to 15 November.

The ODNR DOW appreciates the opportunity to review this application for its completeness and will look forward to providing additional comments for OPSB's staff on any revised applications for LEEDCo's proposed Icebreaker Offshore Wind Energy project. Based on the above comments, the ODNR DOW believes, at this time, the application is not complete enough to conduct a proper technical review.

**Coastal Management:** The Office of Coastal Management offers the following comments.

LEEDCo obtained a submerged lands lease in accordance with ORC Section 1506.11 commencing 1 February 2014 and ending 31 January 2064. The proposed locations of the turbines differ slightly with the legal description within the Lease, but this could be due to the conversion from the geodetic coordinates (WGS84) provided in the Ohio Power Siting Board application to the State Plane Coordinate System (NAD83) provided in the Lease area description.

Pursuant to the Coastal Zone Management Act of 1972, as amended, and its corresponding federal regulations, any U.S. Army Corps of Engineers permit for the proposed project may not be issued until a Federal Consistency concurrence is issued by ODNR. To ensure Consistency with the applicable enforceable policies of the Ohio Coastal Management Program, an ODNR *Shore Structure Permit* (if necessary), *State of Ohio Submerged Lands Lease*, and an Ohio Environmental Protection Agency *401 Water Quality Certification* must be obtained by the applicant.

**Watercraft:** The Division of Watercraft offers the following comments.

This proposal would affect recreational navigation in the waters of Lake Erie. As such, these structures must be marked appropriately for both day and night to avoid potential problems regarding recreational navigation. We recommend these structures be marked according to the regulations and standards of the U.S. Coast Guard.

Also, we are unsure as to the overall opinions of the recreational boating community regarding these structures and may offer additional comments and/or suggestions in the future.

**Geological Survey:** The Division of Geological Survey offers the following comments.

Ice ridges that form on Lake Erie can exceed 30 feet in height and can be grounded on the lake bottom. As a wind-driven ridge advances, the base can erode channels in the substrate that can exceed six feet in depth. This process is documented in a video collected in 1982 by Ontario Hydro during a study of ice ridge processes. There are concerns that the applicant's proposed design may not reflect knowledge of the potential magnitude of Lake Erie ice ridge formation.

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments, would like a copy of the video referenced above or need additional information.

John Kessler  
ODNR Office of Real Estate  
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## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ecological Services  
4625 Morse Road, Suite 104  
Columbus, Ohio 43230  
(614) 416-8993 / FAX (614) 416-8994

March 24, 2014

Mr. Klaus Lambeck  
Ohio Power Siting Board  
180 East Broad Street  
Columbus, OH 43215-3793

TAHLS: 31420-2009-TA-0721

Re: Icebreaker Wind Facility, 13-2033-EL-BGN

Dear Mr. Lambeck:

This is in reference to the Lake Erie Energy Development Corporation's ("LEEDCo") application to the Ohio Power Siting Board for a Certificate of Environmental Compatibility and Public Need (Certificate) for the proposed Icebreaker Wind Facility. The proposed project involves the installation of up to six 3.0 MW wind turbine generators, underground collection cables, and connection to an existing substation. The total generating capacity of the facility will not exceed 18 MW.

The project is located approximately seven to nine miles off the coast of Cleveland in Lake Erie. Approximately 60.6 acres (10.5 ac of permanent disturbance) of lakebed will be disturbed and 11 miles of interconnection cable will be needed. This project plans to connect to an existing substation in Cleveland. The majority of this project will occur within Lake Erie with only the substation interconnection occurring on land; no impacts to wetlands or forested area are anticipated.

The U.S. Fish and Wildlife Service (Service) received your letter requesting our review of the application for the informational completeness on February 10, 2014, and we submit this letter in response. The following comments are being provided pursuant to the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d; BGEPA), the Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA), the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1544, 87 Stat. 884; ESA), the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j, not including 742 d-l; 70 Stat. 1119), as amended.

The Service, LEEDCo, their representatives, and the Ohio Department of Natural Resources (ODNR) have been involved in discussions regarding this proposed project since 2008. We have participated in meetings, and engaged in numerous conference calls and emails regarding this project.

Unlike onshore facilities, the Service currently does not have standardized pre-construction monitoring protocols to assess impacts of offshore wind facilities. The Service worked closely with the ODNR in developing a pre-construction monitoring protocol for this offshore wind energy facility which was the first of its kind for the region. LEEDCo conducted the following pre-construction wildlife surveys requested by ODNR and the Service: bat acoustic monitoring April 1 - November 10, 2010; and radar monitoring April 1-May 31 and August 15-October 13, 2010. Two additional surveys were conducted; these were not part of the studies recommended by ODNR and the Service (avian acoustic surveys, and boat based nocturnal surveys). Due to the potential impacts to fisheries ODNR and the Service requested several surveys to assess the importance of the area as a fishery. LEEDCo has yet to complete these studies.

#### GENERAL COMMENTS:

Currently there are no offshore wind facilities in North America, additionally there are very few (potentially only 1) wind facilities sited in a freshwater environment world-wide. The LEEDCo project has always been, and continues to be, proposed as a “demonstration project” or “pilot-project.” Information gathered from this project will be used to assess the feasibility of developing commercial-scale wind facilities in Lake Erie, or the Great Lakes as a whole. As such, it is essential to have scalable pre- and post-construction studies to evaluate potential impacts to fish and wildlife Trust resources. Within the documents provided as part of the OPSB application LEEDCo provided results from portions of the recommended pre-construction monitoring (e.g., bird and bat monitoring), but portions of the recommended pre-construction monitoring were not conducted at all (fisheries monitoring), and no post-construction studies were proposed to assess potential impacts to birds, bats, and fisheries. Therefore, the Service finds that this application is incomplete. More specific comments on various issues of concern to the Service are presented below.

#### MIGRATORY BIRDS

Migratory birds are a Federal Trust resource entrusted to the Service by the MBTA. The proposed project location is between 7-9 miles off the coast of Cleveland, thus lacks habitat for many species of birds that breed in Ohio. The site is approximately 3.5 miles from an area designated by The Audubon Society as the Cleveland Lakefront Important Bird Area (IBA). This area was selected as an IBA due to the large concentrations of waterfowl and gulls that congregate there during spring and fall migration (also wintering waterfowl, gulls, and eagles) (Ritzenthaler 2008). The waters around Cleveland provide important overwintering habitat for gulls (herring, ring-billed, Bonaparte's, great black-backed, etc.), ducks (greater and lesser scaup, red-breasted and common mergansers, goldeneye, bufflehead, redhead, canvasback), common loons and horned grebes. During winter flocks of over 10,000 birds are not uncommon near Cleveland and the maximum daily counts for red-breasted merganser in some years has reached 250,000 (Ritzenthaler 2008). Additionally, several locations (Wendy Park, Edgewater Park, Cleveland Lakefront Preserve, etc.) along the lakeshore are known for their large concentrations



of passerines during migration. Within the Avian Risk assessment it contends that “the Icebreaker site does not appear to be on a heavily used migration path for waterfowl or seabirds.” While large numbers of birds may not feed within the area, they are likely to cross through the area to reach their overwintering areas near shore and they do congregate in large numbers within just a few miles of the project. Due to the lack of offshore wind facilities in North America several LEEDCo documents cite the experiences of Europe to draw information. Yet several European countries have banned offshore facilities from within 12 miles of the shoreline (Rein et al. 2013), this may be in part due to the congregations of waterfowl found near shore.

Thus, the Service believes that waterfowl are at risk of mortality and possibly displacement from the Icebreaker project. LEEDCo should develop a Bird and Bat Conservation Strategy (BBCS) that outlines minimization measures, monitoring methods, and adaptive management that will be implemented to protect these species.

The boat landing that will be at the base of each turbine may attract species such as double-crested cormorants, herring and ring-billed gulls. Herring gull, lesser black-backed gull, great black-backed gull fly within the rotor swept zone between 30-35% of the time (Furness 2013). Also, during the pelagic bird surveys that were conducted by ODNR large numbers of ring-billed and herring gulls were observed feeding on the bi-catch of commercial fishing vessels. It is unclear whether commercial fishing vessels will be using this area, which could increase incidences of bird collisions by increasing the number of birds in the area. Thus, waterbirds are at risk from the project and LEEDCo should address these species in the BBCS.

LEEDCo’s Environmental Assessment states that between 4-13% migrants fly within the height of modern wind turbine rotors, and that tens- to hundreds of millions of birds migrate over Lake Erie. Based upon these numbers it would mean that between 400,000-13,000,000 songbirds fly at rotorswept height when flying over Lake Erie. Within the “Final Avian Risk Assessment 2013” it states that “Fatality numbers and species impacted at the offshore site are likely to be similar, on a per turbine basis, to those found at projects that have been studied in eastern North America.” Post-construction studies at onshore Canadian wind facilities average 8.2±1.4 birds per turbine (Zimmerling et al. 2013) and 6.86 birds per turbine for the United States (Loss et al. 2013). If waterfowl and waterbird mortality rates will be similar to those of European facilities, as suggested in the Avian Risk Assessment (see below), and if baseline songbird mortality rates will be similar to onshore facilities, it’s likely that total bird mortality on a per turbine basis may be greater than at onshore facilities due to the increased abundance of waterfowl and waterbirds near the turbines.

#### Mortality estimates from European offshore wind facilities.

- 0.01-1.2 birds/turbine (Winkelman 1989, 1992a, 1992b, 1992c, 1995)\*
- 6 birds/turbine (Painter et al. 1999)\*
- 4-23 birds/turbine (Everaert et al. 2001)

\* These numbers may not be corrected for searcher efficiency and carcass removal (Langston and Pullan 2003).

As part of the review of this project the Ohio Ecological Services Field Office sent the Spring - Fall 2010 Avian and Bat Studies Report Lake Erie Wind Power Study (TetraTech 2012) to a team of individuals in our Regional Office that conducts radar monitoring of birds and bats. This group provided 11 pages of comments and questions related to the radar report to LEEDCo on November 15, 2013 (attached). The Service has yet to receive a response to these questions. Without clarification on these questions the Service is unable to assess the results of the radar monitoring report and thus we believe that this application is incomplete.

## BATS

Less than a decade ago the biggest threats to bat populations were loss of hibernacula and destruction of summering habitat. Since then, the expansion of the wind industry and the spread of white-nose syndrome (WNS), a novel fungal disease rapidly spreading across the Midwest, have caused the death of millions of bats (USFWS 2012; Arnett and Baerwald 2013). Populations of cave bats have declined so significantly, mostly attributed to WNS, that the Service has proposed listing the northern long-eared bat (*Myotis septentrionalis*) as a federally endangered species<sup>1</sup>. The Service is also currently conducting status reviews for two additional species, the little brown bat (*Myotis lucifugus*) and tri-colored bat (*Perimyotis subflavus*). Both of which were documented acoustically offshore at during the LEEDCo study.

While the offshore environment does not appear to provide habitat for tree-roosting bats, presence of habitat does not seem to be a good predictor of bat mortality at wind turbines during fall migration. Bat mortality at some wind facilities in agricultural landscapes in the Midwest has been occurring at rates as high as 49 bats per megawatt per year (Good et al. 2011), and when this mortality rate is applied across all operating wind facilities in the Midwest, it results in substantial total bat mortality. Research has indicated that bat mortality at operating turbines can be significantly reduced by feathering the turbine blades at low wind speeds.

LEEDCo's Bat Risk Assessment states that "relatively small numbers of migratory bats are likely to encounter the project." Long distance migrants such as eastern red (*Lasiurus borealis*), hoary (*Lasiurus cinereus*), and silver-haired (*Lasionycteris noctivagans*) bats are known to cross large bodies of water and can be found far from shore (Pelletier et al. 2013). The report states that 3.7 passes/detector-night were recorded at the offshore location and compares that to what was recorded onshore in Cleveland (38.0 passes/detector-night) to conclude that impacts to bats from the Icebreaker project would be less than a comparable on-shore project.

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<sup>1</sup> The proposed listing of northern long-eared bat, which was proposed in October of 2013, was not included in either the Bat Risk Assessment or the Summary of Sensitive Species. See "Endangered Species Comments" below.

The offshore acoustic monitoring conducted as part of LEEDCo's application detected bat activity at higher rates than during pre-construction monitoring that has occurred at 2 land-based operating wind facilities in Ohio. Timber Road and Blue Creek wind facilities in Paulding County, recorded 2.78 and 1.31 passes/detector-night respectively. Based upon this information it is unclear as to whether this offshore wind facilities will pose less of a threat to bats than onshore facilities. Additionally, there are several factors that confound the results of acoustic surveys. Since all offshore acoustic monitoring had to be conducted from the Cleveland Crib, acoustic monitoring sites were co-located with radar monitoring locations. Radar has been shown to reduce bat activity, potentially due to electromagnetic fields causing discomfort (Nicholls and Racey 2007). Large concentrations of insects were also observed swarming above the Cleveland Crib. Bats have been observed pausing during migration to take advantage of congregations of insects around offshore wind turbines (Ahlén et al. 2007, 2009). Thus there is a factor that may reduce bat activity, and one that may increase bat activity, therefore it is unknown if either influenced the number of detections recorded at this site. Regardless, 95% of the calls recorded were of the three species most susceptible to collisions with wind turbines. To date the only mechanism known to reduce bat mortality at wind turbines is to curtail turbines during nights of low wind speed, which is the period when bats are most susceptible to being struck.

Thus, the Service believes that bats are at risk from the project and LEEDCo should address these species in the BBCS. Should this facility be constructed, the Service requests that a condition be included within the Certificate requiring the curtailment of turbines at least up until the manufacturer's cut-in speed is reached at night during the fall migratory period. This measure should not affect energy generation, but may measurably reduce bat mortality.

#### ENDANGERED SPECIES COMMENTS:

The proposed project is located in Cuyahoga County, in Ohio. There are five species of birds or bats that are federally endangered, threatened, proposed, or candidate species that may occur in Cuyahoga County: Indiana bat (*Myotis sodalis*) <sup>Endangered</sup>, northern long-eared bat <sup>Proposed Endangered</sup>, Kirtland's warbler (*Setophaga kirtlandii*) <sup>Endangered</sup>, piping plover (*Charadrius melodus*) <sup>Endangered</sup>, and red knot (*Calidris canutus rufa*) <sup>Proposed Threatened</sup>.

Cuyahoga County has confirmed records for Indiana and northern long-eared bats. While northern long-eared bats may be relatively scarce in Ontario, as mentioned in the Bat Risk Assessment, they are captured at ~47% of mist-net sites in Ohio and comprise ~12% of the bats captured. Both of these species may travel several hundred miles between their summering habitat and winter hibernacula (Griffin 1945, Winhold and Kurta 2006).

While Indiana bats have been documented to fly over Lake Erie (Niver 2013, personal communication), given that no maternity colonies are known to occur in Canada, and that the majority of their hibernacula are to the south of the project area, it is unlikely that Indiana bats will encounter the LEEDCo project. Northern long-eared bats are a forest dwelling species,

feeding on insects gleaned from vegetation or in mid-air (Lee and McCracken 2004). Though historically abundant, the northern long-eared bat has rarely been found during mortality surveys at onshore wind facilities. Since this facility is not located near any forested area and because northern long-eared bats seem to be less susceptible to collision mortality from wind turbines it is unlikely that northern long-eared bats will encounter the LEEDCo project.

Piping plovers, red knots, and Kirtland's warblers all migrate through Ohio. Only the piping plover has historically nested within the state. The Great Lakes population of piping plover nests primarily in Michigan and consists of approximately 63 pairs of birds. Kirtland's warblers nest in young stands of Jack pines primarily in Central Michigan. Their current population is over 3,000 individuals (USFWS 2012). Red knots nest in the high arctic, and winter along both coasts of North America. While the vast majority of the red knot population migrates along the coastline, occasionally small numbers of birds have been found in Ohio, typically along marshes in the western basin of Lake Erie. The proposed location for the facility does not have suitable habitat for these species. Most observations of these species occur in the western basin of Lake Erie, where there is more stopover habitat. Finally, given the scale of the project it is the Service's belief at this time that it is unlikely these species will encounter the LEEDCo project.

#### BALD EAGLE COMMENTS:

Bald eagles are protected under the MBTA and are afforded additional legal protection under the BGEPA. BGEPA prohibits, among other things, the killing and disturbance of eagles. Due to the proposed project location and the distance this facility is from the shoreline, the Service believes that take of eagles is unlikely during the breeding, egg laying and incubation, chick rearing, and fledging periods. However, bald eagles winter along the shoreline of Lake Erie and are regularly observed along the lakeshore in Cuyahoga County (avianknowledge.net). In winter when ice forms along the shoreline it may force wintering birds closer to the proposed facility. Within the last several years Lake Erie has almost completely frozen over. As the ice builds along the shoreline it forces ducks, gulls, etc. further into the lake. Eagles, which will feed on fish and waterfowl, will congregate along the leading edge of the ice, or near open leads in the ice. Should the ice extend far enough, as it did this past winter, it may put waterfowl and eagles in close proximity to the turbines. Thus, bald eagles may be at risk from the Icebreaker project. The Service recommends that LEEDCo develop a BBCS to address this issue. If take of eagles cannot be avoided LEEDCo should work with the Service's Division of Migratory Birds to obtain an eagle take permit.

Within in the "Summary of Sensitive Species" the Applicant states that "the nearest [bald eagle] nest is located is located near Sandusky (Peterjohn and Rice 1991)". this information is outdated. In the 23 years since the original Breeding Bird Atlas was conducted the bald eagle population has expanding significantly. Ohio now has over 200 nesting pairs of bald eagles: the nearest known nest to the proposed project area is located in Cuyahoga County, approximately 11 miles away.

#### FISHERIES:

One of the responsibilities of the Service is to manage interjurisdictional fisheries, i.e., fisheries that are managed by more than one state or nation. The waters of Lake Erie are managed by four states (Michigan, Ohio, Pennsylvania, and New York), and Canada. A component of the pre-construction survey project developed jointly between ODNR and the Service were studies to assess the fisheries in the proposed project area. These studies have yet to be completed, thus this application should be deemed incomplete.

#### COORDINATION WITH THE U.S. ARMY CORPS OF ENGINEERS:

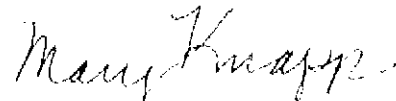
This project will require a section 10 permit of the River and Harbors Act and authorization under section 401 of the Clean Water Act. Both are administered by the U.S. Army Corps (Corps) of Engineers (Buffalo District). The Service reviews permit applications under these laws and works with the Corps to address fish and wildlife impacts. The Service will consult with the Corps under Section 7 of the ESA, if necessary, and will provide additional comments to the Corps under the National Environmental Policy Act.

#### POST-CONSTRUCTION MONITORING:

One of the purposes of a small-scale demonstration project is to assess the viability and potential impacts of the project. As such, if constructed this project should have a valid post-construction monitoring plan that is approved by both the ODNR and Service. Any and all results of post-construction mortality studies must be provided to both ODNR and the USFWS. This should be included as a condition of their Certificate.

The Service appreciates the opportunity to comment on this application, and looks forward to continued collaboration on this project. If you have questions, or if we may be of further assistance in this matter, please contact Keith Lott at extension 31 in this office.

Sincerely,



Mary Knapp, Ph.D.  
Field Supervisor

Cc: Ms. Jennifer Norris, ODNR, DOW, Columbus, OH  
Mr. Nathan Reardon, ODNR, REALM, Columbus, OH  
Mr. Joe Loucek, OEPA  
Mr. Joe Krawczyk, USACE, Buffalo, NY

Attachment: "Review of: Spring-Fall 2010 Avian and Bat Studies Report Lake Erie Wind Power Study (Prepared by TetraTech, A. Svedlow et al.) by USFWS Region 3 Radar Team."

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## CLOSING REMARKS AND THANK YOU!

*Thank you for your scrutiny of our comments, and our objections to LEEDCo/ICEBREAKER.*

*The reality is potential harm of an epic scale. It is not about six: it is about the inauguration of a massive industrialization in 21% of the world's fresh water.*



We agree with Lawyer [John Stock's assessment](#):

***“The Project remains as ill-conceived and disastrous for Lake Erie as it was on the date of its conception. The residents continue to fight to protect their interests.... In glaring contrast, Icebreaker is spending millions of dollars... The Board must not abet Icebreaker’s proposed fouling ... of Lake Erie.”***

The classic structure of a story is a beginning, middle, and end. Icebreaker has had two beginnings, several tangled middles, and, to date, no closure. Developer [Fred Olsen Renewables](#) Inc. of Norway offers a Trojan Horse, comprised of many assertions that stand in need of serious examination.

The exaggerations and misrepresentations of this application to construct are many. These include no biologically significant harm to wildlife; birds do not fly over the lake; and super-luminous lures of jobs and power supply. Of course, the proposal is layered in the meme that the climate (really weather) can be mitigated by this and other such projects given less reliance on coal or fossil fuels.



Organization after organization, some worldwide, have noted the deficiencies/lack of Icebreaker's [Environmental Impact Assessment](#) (EIS). FWS and ODNR have noted over time, the lack of rigor in the application's surveys, methodology, and "tool kit." While the permit was denied or deferred in 2014, many of the prescriptions to advance, have not yet been met. Local Cleveland groups representing thousands, tens of thousands, Lake Erie Foundation's John Lipaj, and Michelle Burke of the Lake Erie Marine Trades Association, for example, commented on very real dangers to water supplies and potential to stir up the contaminated Cuyahoga River's dredging spoils.

Marine Boating Industries Executive Director, Nicki Polan, added her concern over the facile attempts by the developer to skirt over some of the most obvious needs for a complete high-level Assessment. Ken Alvey and Norm Schultz (Cleveland) have written and spoken vehemently about the harms, and David Strang continues education in many venues. Add the powerful voices of business leaders Tom Sullivan and Fred Hunger. International objections have accrued over the years as well.

It is impossible to hand over the Public Trust of Lake Erie's lakebed, to a foreign billionaire developer, and an Ohio developer group, with a legendary and miraculous ability to ignore, override, and deny environmental concerns. This developer has repeatedly said, even to Cleveland based Senator Sandra Williams, "There is no migration across the lake; birds do not fly over the lake."

Final briefs are in. The flaws in the developer's design and execution have been ably dissected by John Stock, an attorney who has long represented several residents (Bratenahl) with nothing to gain, save the protection of Lake Erie.

Here are a few of our favorite paragraphs from the Final Brief of Mr. Stock. This follows the nearly incomprehensible "recommendation by OPSB Staff" to approve the application.

- Nonetheless, and despite Applicant Icebreaker Windpower, Inc.'s ("Icebreaker") complete failure to supply any information as to how it will meet these challenges, Staff recommends approval of the Revised Stipulation—and of the Project. Icebreaker has failed to establish the probable environmental impact of the Project on birds and bats and has failed to established (sic) that the Project represents the minimum adverse impact to birds and bats, as required by R.C. 4906.10(A)(2) and (3), respectively.
- Moreover, granting a Certificate for the Project would violate the State's obligation to hold its ownership interest in Lake Erie for the benefit of all citizens of the State of Ohio—not for the pecuniary benefit of a private, for-profit Norwegian corporation, Fred. Olsen Renewables. The State of Ohio's ownership interest in Lake Erie is governed by the "Public Trust Doctrine."
- Once the Proposed Project breaks the barrier against privately-owned wind turbine installations in the Great Lakes, Icebreaker intends to seek Board authorization to install an exponentially greater number of wind turbines in the Lake, capable of producing enough electricity, albeit uncompetitively-expensive electricity, to obtain some meaningful return on its enormous investment, all at the expense of Ohio's wildlife— particularly bats and birds—and the citizens, including the Intervening Bratenahl Residents, who enjoy that wildlife
- Indeed, both the Staff and USFWS acknowledge that Icebreaker has to date failed to identify— much less implement—scientifically-sound methodologies for accurately assessing the probable

environmental impacts of the Proposed Project on birds and bats. For that reason alone, the Board cannot grant a certificate to Icebreaker allowing it to proceed with construction of the Project.

- Icebreaker Has Failed to Demonstrate the Nature of the Project's Probable Environmental Impact or That the Facility Represents the Minimum Adverse Environmental Impact

"Icebreaker clings to this "the earth is flat" myth to justify its pre-ordained conclusion that the Project presents "low" risks to birds and bats."

Read the entire brief [here](#).

# THANK YOU FOR KEEPING LAKE ERIE TURBINE FREE!

*The Great Lakes are made to last, they are not ours to trash.*



*There are currently more than 14,000 rotting abandoned turbines in the U.S.*



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**Section One:** Letter to Governor Mike DeWine, and Samuel Randazzo, Addendum

**Section Two:** Signatories and other objectors to Icebreaker, representing tens of thousands

**Section Three:** Sample Letters of concern/objection, of which there are hundreds or thousands over ten years

**Section Four:** Final Notes on incompleteness of application, errors, omissions, incompleteness, OTHER

**CONCLUSION and THANK YOU!**

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Summary: Public Comment of Thomas Sullivan, via website, electronically filed by Docketing Staff on behalf of Docketing