



TO: OPSB, Matt Butler, Governor DeWine, Dan McCarthy, Haylee Dunahay

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Date: August 9, 2019

Dear Mr. Butler and Governor DeWine, Mr. McCarthy, Ms. Dunahay,

Please accept the link here, referencing a blog out of Houston, Master Resource, along with this letter, as a comment towards Icebreaker, **Case 16 1871 EL BGN**.

<https://www.masterresource.org/offshore/leedco-icebreaker-offshore-wind-trouble/>

Excerpts:

- *"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."*
- 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 CO₂ and getting off the fossil fuel addiction. None of these claims are true or useful.

- **Environmental Objections**

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

- They include Lake Erie Foundation; 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.
- 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.
- (Quoting Jim Wiegand, wind turbine wildlife biologist from CA) *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.*
- **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.

Vanern: Bad Precedent for Icebreaker

- An ongoing embarrassment for the developer is the *abject failure of the freshwater lake installation in Sweden, Vanern* . 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 Vanern, 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 Vanern is any bellwether for turbines in Lake Erie, Icebreaker, take heed.

ADDITIONAL COMMENTS

Additional to the comments in the article, please also note the ongoing observations about offshore wind; the problems with cables, cost, connection difficulties, obstacles to commercial fishing viability, obvious safety implications for radar for fishermen, boaters, airmen. Radar Interference along proposed areas for offshore wind on the Eastern Shore board is being noted as possibly of Homeland Security stature. As turbines increase in size, so does confusing "clutter."

The Lakes are 20% of the world's remaining fresh water. *Challenges remain and questions are unanswered.*

- *...key challenges remain to support a robust offshore wind industry, including effective stewardship of ocean and Great Lakes resources. Offshore wind facilities may impact competing uses such as air traffic control, air surveillance, weather, and navigational radar systems, and the strategy notes further study is needed. The effects of land-based wind turbines on radar systems are well understood. Wind turbines within radar line-of-sight can increase clutter that may inhibit target detection, increase the generation of false targets, interfere with target tracking, and hinder*

weather forecasting [2]. However, the effects of offshore wind turbines on U.S. coastal radar systems are not well understood due to the lack of operational wind facilities for empirical study. Offshore wind turbines may pose unique impacts to coastal radar systems given the differences in propagation of radar signals over the ocean versus land, as well as the larger size of offshore wind turbines compared to land-based wind turbines. Determining risk and assessing wind turbine interference impacts on a given radar system is a complex question.

- In late 2016, the first U.S. offshore wind farm was commissioned off the coast of Rhode Island. In constructing the Block Island Wind Farm, developer Deepwater Wind had to use a wind turbine installation vessel — **Fred Olsen Windcarrier's *Brave Tern*** — from Europe because no boat big enough to install the vessels existed yet in the United States. Because of U.S. regulations in the Jones Act, ***Brave Tern* was not permitted to touch the shore, meaning that other U.S.-flagged vessels had to transport equipment from the U.S. coast to the installation site, adding additional cost to the installation of the project.**
- *The Great Lakes cannot become a target for experimenters, and Icebreaker cannot be permitted to act as a magnet for even more economic and environmental degradation.*

OFFSHORE WIND IS NOT ALL ITS CRACKED UP TO BE: now they want to bring it to the US. Don't let Icebreaker pave the way to this outrageous exploitation of our natural resources.

- 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 \$\$\$\$\$\$

AN EXAMPLE OF A FAILED PROJECT, 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."

FOR SALE!

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

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.

Cautionary tales we would be wise to observe. *Please also note in the Master Resource piece, references to cables at the five turbine project at Block Island that have not been properly positioned, not deep enough, which are rising to the surface, 34.500 volt cables that are necessitating massive concrete blankets to hold them down, until a ten million dollar mitigation can be in place.*

Thankyou for accepting our comments.

Sincerely,

*Sherri Lange
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This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

8/12/2019 1:14:01 PM

in

Case No(s). 16-1871-EL-BGN

Summary: Public Comment received via website electronically filed by Docketing Staff.
electronically filed by Docketing Staff on behalf of Docketing