

# 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.

Representatives of LEEDCO, the local non-profit that has been working to garner support for the project, have told the public during their presentations that they “have 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.” The perception that Icebreaker is only a six turbine project has helped the developers gain support among the public, media, politicians and some environmental groups.

What we’ve learned, is that the developers and special interest groups behind this project, intend to build 1,400 to 1,600 wind turbines across Lake Erie by the year 2030. The demonstration project would then lead to construction of offshore wind turbines throughout the Great Lakes.

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

### 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 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 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 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.
- Ontario has imposed a moratorium on offshore wind development in the Great Lakes.

### 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. 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 the Block Island offshore wind facility.

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

- Lake Erie tourism including vacation home rental and lodging, 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.

We can conclude, that building wind turbines in Lake Erie will have a devastating effect on Lake Erie tourism resulting in job losses and loss of tourist spending. Those losses would more than outweigh the 159 temporary local jobs and only 9 permanent jobs that *may* 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 foreign corporation, Fred Olsen Renewables of Norway. Fred Olsen is the now the owner of Icebreaker Windpower, Inc. Fred Olsen is also the parent company of Fred Olsen Energy, which is in the offshore oil & gas exploration business. According to a December 20, 2018 article in Offshore Energy Today, "Fred Olsen Energy previously said that, unless a solution is found to the refinancing, the company would need to file for bankruptcy".

#### 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), 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 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 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 acquiring the submerged land lease to Lake Erie 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, which will lower their taxes.
3. They will receive U.S. federal Investment Tax Credits, which will also lower their taxes.
4. They have been granted a Payment In Lieu of Taxes (PILOT) tax break by Cuyahoga County, which will further lower their taxes.
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 currently available at an average cost of around \$34 per megawatt hour.

So what we've learned is that 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 receive any benefit.

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

Many see similarities between claims made by LEEDCo and New Jersey's proposed Nautilus Offshore Wind, which was touted by its developers as "a pilot project to develop the infrastructure and skilled workforce that will establish New Jersey as a leader in the offshore wind industry."

But New Jersey found the project was deemed too costly and unable to demonstrate it would have a *net economic benefit* to customers who would pay for it. "Simply stated, the Nautilus proposal contains a price too high and benefits too tentative," said New Jersey Public Utilities President Joseph Fiordaliso in rejecting the project. "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.

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."

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

The cost of constructing an offshore turbine is about 3 times higher than onshore.

- Icebreaker is expected to cost about \$128mm to construct, resulting in capacity of 20.7 MWh. The Steel Winds onshore project near Buffalo cost 75% less to build and yet generates more power capacity.
- Offshore wind turbine maintenance costs are 3 to 4 times higher than onshore. Picture a maintenance crew, on a work boat (diesel powered, with crew of three) as they attempt to repair a turbine on Lake Erie during winter's ice or frequent high waves.
- The useful life of a turbine is about 15 to 20 years. At which point many must be decommissioned and removed. California has hundreds of wind turbines that are abandoned and are falling apart.
- Conneaut Ohio had two wind turbines installed several years ago in an attempt to go green. Neither turbine is operational. One was struck by lightning, damaging a blade and the gear box. The second never functioned properly. The developer has failed to repair them due to high repair costs. The city is threatening legal action to have them repaired or removed.

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. Who will be stuck with the bill for the removal of these 1,400 to 1,500 turbines on Lake Erie in 15 to 20 years? The European developer? 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.

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 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.

## **Project Status**

Icebreaker has met the technical requirements of the Ohio Power Siting Board, so the OPSB Staff has recommended that the OPSB Board grant approval to the project. The OPSB Board will vote to approve or decline issuing a construction certificate most likely in July of 2019.

## **Conclusions**

**After doing extensive research, the Lake Erie Foundation has found overwhelming scientific and practical evidence that the environmental and economic costs of Icebreaker far outweigh the few illusory benefits claimed by the developer. Objective, fact-based analysis in the form of an Environmental Impact Statement should be required for the following reasons:**

- **First, this project is precedent setting. 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 corporation and special interests 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 Governor DeWine has taken the prudent and appropriate steps to protect Lake Erie for Ohio's citizens.**

*Links to documentation for the above facts are contained on:*

<https://www.saveourbeautifullake.org/issues-with-project-icebreaker/>

<https://lakeeriefoundation.org/issues/wind-turbines/>

<https://www.lemta.com/wp-content/uploads/2018/08/Mid-AMBoating6.pdf>