Icebreaker Wind is a 6-turbine demonstration project to be built 8 miles off downtown Cleveland’s Lake Erie shoreline by the Lake Erie Energy Development Corp. (LEEDCo). While it will be the first freshwater offshore wind project in North America, there are over a hundred turbines in freshwater throughout Europe with more on the way.

LEEDCo is a non-profit, public-private, regional economic development partnership whose members include the City of Cleveland, the Cleveland Foundation, Port of Cleveland, and the Ohio counties of Cuyahoga, Lake, Ashtabula and Lorain, as well as Erie County, PA.

LEEDCo is partnering with Fred. Olsen Renewables of Norway to permit, construct and operate the Icebreaker Wind project in Lake Erie.

6 Turbines
8 Miles Offshore
500+ Jobs
20.7 Megawatts Locally Generated Clean Energy
7,000 Homes Powered
$168 Million in Economic Impact

A New Energy Source For Northeast Ohio
Thoughtful, Comprehensive Public Process

Over the past four years, Ohio and U.S. regulatory agencies have held numerous meetings and hearings for the public to provide comment on the project. LEEDCo has presented at more than 400 public meetings and continues to engage stakeholders across the region.

Icebreaker Wind recently received a favorable (conditional) recommendation from the staff of the Ohio Power Siting Board, which includes representation from the Ohio Environmental Protection Agency, the Ohio Department of Natural Resources, the Ohio Public Utilities Commission, the Ohio Department of Health, the Ohio Department of Agriculture and the Ohio Department of Development.

LEEDCo is required to obtain approval from 14 local, state and federal agencies that investigate every aspect of the project from concept and design through construction, operation and decommissioning.

Once all approvals are in place, LEEDCo could begin construction on Icebreaker Wind as early as 2020 and operations by the end of 2021.

Clean Power And New Jobs

Northeast Ohio will become an innovation leader with Icebreaker Wind. The project is poised to unlock the vast offshore wind energy potential in the Great Lakes. In fact, for all Great Lakes states to meet their emission free energy targets, offshore wind is one of the only scalable energy resources that can help meet those goals.

More than 16 offshore wind projects are moving ahead along the United States’ East Coast, creating a new $50 billion industry. Not only will Icebreaker Wind allow Northeast Ohio to tap into this new economy, it could lead to more Great Lakes projects boosting the regional economy and supplying multi-gigawatt scale clean energy.

Icebreaker Wind will lead to a more diverse clean energy supply and will give Ohio’s substantial manufacturing base an opportunity to participate in a new high growth industry. Ohio manufacturers are prepared to ramp up production of wind energy components for all U.S. offshore wind projects.

When Icebreaker Wind is approved, the Midwest – and Ohio in particular – will be in a position to compete in a rapidly growing U.S. offshore wind market.

![US Offshore Wind Project Timeline](image)

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Minimal Risk to Birds & Bats

The U.S. Fish & Wildlife Service (USFWS) has concluded that the project is unlikely to adversely affect any threatened or endangered species and poses limited direct risk to birds and bats.

Studies by government agencies, researchers and avian biologists show that the number of waterbirds drops off dramatically with distance from shore. In addition, the number of nocturnal migrants flying over the Icebreaker project site is less than ½ that along the shore, and 1/7th that over the eastern basin of Lake Erie.

Even so, Icebreaker Wind is conducting extensive monitoring surveys before and after construction to ensure that there are no or only minimal adverse impacts to birds and bats. Icebreaker Wind has also committed to best practices during periods of high risk to birds and bats, to install bird-friendly lighting and anti-perching devices to reduce risks.

Minimal Risk to Fisheries

Icebreaker is working with regulatory agencies, scientists and researchers to collect site specific data and better understand the physical and biological characteristics of Lake Erie. This includes collecting water quality and fisheries samples before and after construction. Additionally, the Ohio Environmental Protection Agency issued their water quality certificate of approval for Icebreaker Wind.

Reducing Mercury in Lake Erie

The total economic impact of sport fishing in the Great Lakes states totals more than $20 billion, supporting around 190,000 jobs, with most of that coming from Lake Erie. Unfortunately, Lake Erie is under a fish consumption advisory, in part due to mercury pollution that comes principally from burning coal in power plants. Icebreaker Wind, and offshore wind energy in particular, will help reduce this threat to one of the world’s great fishing centers.
Environmental Benefits of Icebreaker Wind

Various regulatory agencies have exhaustively reviewed the project and agree that it poses minimal adverse environmental impact and has numerous beneficial impacts including the reduction of regional greenhouse gas emissions and a cleaner energy future for Northeast Ohio. As a result, Icebreaker has substantial support from a wide range of environmental groups.

Ohio is over-dependent on fossil fuels to produce electricity. Increasing our use of renewable energy increases our fuel diversity, energy security and addresses the risk of catastrophic climate change.

Cleveland's air quality is among the worst in the nation. Cuyahoga County received an “F” for ozone and a “D” for particle pollution. This air pollution leads to increases in asthma, heart attacks and premature death.

Offshore wind energy will reduce air pollution, improve air quality and minimize the impact of climate change which, according to scientists, is a significant threat facing humans, wildlife and habitat loss.