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Another Voice: Freshwater lakes like Lake Erie are preferable for wind farms

Larry Beahan Aug 4, 2022 Updated Aug 5, 2022

Positioning wind farms offshore has proven successful in oceanic waters off Europe. Some say it has never been done in freshwater lakes and should not be tried on Lake Erie.

Unlike coal-, gas- and oil-burning power plants, offshore wind turbines producing electricity do not heat ocean waters or pollute them with mercury nor do they pollute the air with asthma-producing particles. Offshore, they do not compete with other land uses. Noise and flicker are not problems, and they have the advantage of steady, strong, unobstructed wind over water.

Oceans are excellent for siting wind farms; freshwater lakes are better.

The absence of corrosive salt water, oceanic tides, storms and great depth give lakes the edge. Sweden's five operating wind farms in the Baltic Sea are a demonstration of the practicality and advantages of offshore freshwater wind farms. The Baltic Sea is, virtually, a freshwater lake. A little more than twice the size of the Great Lakes combined, its salinity, 0%-7%, is close to that of the Great Lakes, 0%-4%, as opposed to ocean water at 35%.

The Netherlands has operated a wind farm in a freshwater lake: Windpark Frysland, an 89-turbine 382-megawatt wind farm on Lake IJssel, operating since December 2021.

What if lake turbines leak oil, others ask?

I was in Toledo, Ohio, in 2014 during the time that the city water supply was undrinkable due to toxins from the breakdown of cyanobacteria blooming in the western end of Lake Erie. You could not shower or cook with the water. Restaurants, schools and hospitals closed. You were forbidden to swim in the lake and were told the water might kill your dog if he strayed in. This mess was headed down the lake toward Buffalo. That time it did not get to us.

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Climate change, with its severe turbulent weather, intense rainfalls and persistent elevated temperatures, set the stage for this Toledo cyanobacteria bloom. Episodic heavy rains scoured farmlands in the Lake Erie drainage area and washed heavy loads of nitrogen bearing fertilizer into the lake, which fed the bloom percolating in the unnatural warmth. Swarms of oxygen-starved bacteria died and released their deadly toxins to poison the lake.

We can satisfy our need for electricity with wind turbines and solar panels, so let's stop burning oil, coal and gas that feed this warming blanket of CO₂ that envelopes, steams and poisons the earth.

Modern turbine engineering, secondary containment and biodegradable lubricants are minimizing the risk of oil leaks from turbines. But when compared to the thousands of gasoline- and diesel-powered pleasure craft plying our waters, the risk of oil leaks from turbines dwindles. It is dwarfed when compared to the threat of climate change and cyanobacteria.

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