LAKE ERIE COMMITTEE
POSITION STATEMENT
On

Offshore Wind Power

The Lake Erie Committee of the Great Lakes Fishery Commission recognizes;

- That government agencies view the Great Lakes region as a significant source of wind energy production ensuring a more reliable and sustainable supply of clean renewable energy.
- Great Lakes wind production offers a natural advantage to not only make significant contributions to reducing the impact of climate change, but to better serve the estimated 26 million coastal residences with a clean source of energy, reducing the need to develop high capacity transmission lines through already crowded urban centres, and to act as an economic stimulant to what is considered the fastest growing industry on the world.

- The LEC recognizes and supports each government's priorities for Renewable Energy.

However, the LEC has concerns about many unanswered questions that may significantly impact the sustainable development of Lake Erie fisheries, one of the world's largest freshwater fisheries, including associated economic and social impacts. These include:

- documented impacts associated with the development of offshore windpower are limited to a number of ocean-based studies that differ in size and ecology from Lake Erie. Any documented impacts are only short-term impacts. There is virtually no information documenting short-term or long-term impacts of offshore windpower development in any freshwater environment.

- impacts of short-term effects relating to noise and vibration during construction, or the possible re-suspension of contaminated soils during the trenching of cables or the burying of benthic communities.

- potential long-term effects of wind power on the fish community itself. Continuous emission of noise and vibrations, especially at low frequencies, may affect fish community distribution.

- increased areas of hard substrate, which may concentrate certain fish species (smallmouth bass, walleye, lake trout or lake whitefish), but not add to natural reproduction. Hard substrates will facilitate increased abundance of invasive species like dreissenid mussels and goby.

- Electromagnetic fields are expected to be emitted from cables transferring power from off-shore sites. Fish respond to electromagnetic fields in different ways for

different reasons. For those fish which are sensitive to electromagnetic fields, such disturbance patterns may affect/alter spawning behaviour, migration routes or result in fundamental shifts in predator-prey relationships.

- Potential for disruption to the hydrodynamics properties of Lake Erie may occur. This disruption may slow lake currents and minimize wave activity, reducing the impacts of these habitat structuring forces in near shore regions and/or increase sediment deposition, possibly reducing the quality of important spawning reefs. Such changes may affect fish like walleye, which may follow currents during annual migrations. Changes in current patterns may indirectly affect the seasonal warming/cooling rates of water, modifying the environment triggers which may be crucial for walleye migrations or for the onset/duration of yellow perch spawning.

- A loss of fishing access to prime fishing areas, depending on the siting of wind farms, could cause major economic losses.

As a result of the lack of documentation regarding the impacts to the fish and fish habitat of Lake Erie, LEC recommends that;

- More emphasis and consideration be placed on impacts to the Lake Erie fish community and its associated habitat.
- All offshore windpower projects include;
    - A demonstration of clear and substantial public benefit, including, but not limited to, environmental benefit.
    - Long-term ecological monitoring should occur both pre-construction and post-construction.
    - Adaptive mitigation measures that would reflect monitoring results. If negative impacts are identified, projects should be re-sited or adjusted to minimize impacts to Lake Erie fisheries and fish habitat.
    - Adaptive management should be implemented for future proposals as best-management practices are developed.

- Areas identified as biologically or physically sensitive or areas of archaeological, recreational and commercial values should be protected from offshore windpower development.
- Offshore windpower sited in areas where impacts are minimal and reduce loss of biological productivity or harm to the fish community.
- Legislative tools and policies are used to prevent and/or where necessary minimize or mitigate degradation of aquatic habitats for fish and other aquatic organisms.
- Prior notice and consultation should occur on a lake wide basis for all substantial proposed offshore windpower development projects to ensure consistency across Lake Erie, as envisioned through *A Joint Strategic Plan for Management of Great Lake Fisheries.*