Citizen Views on Offshore Wind Energy in Lake Michigan - Fact Sheet

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A Delphi Inquiry Approach

Wind energy is, after energy conservation, the most cost-effective approach to generating clean electricity. The West Michigan Wind Assessment, a Michigan Sea Grant-funded project, has been documenting the benefits and challenges of wind energy development, onshore and offshore, in coastal West Michigan. While the benefits and challenges of onshore wind energy development are generally well understood, the prospects for offshore wind energy development are less clear. This is especially true for West Michigan.

We used a facilitated group discussion technique called a Delphi inquiry to understand the conditions, if any, under which offshore wind energy development could be acceptable in West Michigan. The Delphi inquiry provides a forum in which participants can contribute and revise their views on a specific issue. Participants review and consider the (anonymous) responses of the other participants and vote on whether they agree with the responses. The goal is to arrive at an informed group consensus on a complex issue.

For our project, thirty-five geographically and professionally diverse experts from five West Michigan counties (Mason, Oceana, Muskegon, Ottawa, and Allegan—Figure 1) volunteered to participate in the Delphi Inquiry for offshore wind energy. The participants, grouped by county, offered ideas in five aspects of offshore wind energy development in Lake Michigan:

- The benefits, if any, to local communities;
- Ways in which communities can capture those benefits, if any;
- The challenges facing offshore wind energy;
- Ways of mitigating the challenges, if any; and
- Information gaps.

Figure 1: The Delphi Inquiry included participants from five West Michigan counties.

This project is a collaboration between Grand Valley State University and the Great Lakes Commission and is funded by a grant (BES-11-22) from the Michigan Energy Office.
At every point in the process, participants had an opportunity to assert that offshore wind energy development in Lake Michigan is inappropriate.

Outcomes

As anticipated, each county group had a range of opinions about wind farms in Lake Michigan, yet the groups were able to reach a consensus (defined as 80% agreement) on at least one statement related to offshore wind energy development. Most of the agreement revolved around the challenges and information gaps and there was very little consensus on the benefits of offshore wind energy to local communities. None of the county groups arrived at consensus on the idea that offshore wind energy development in Lake Michigan is unacceptable under any circumstances. This suggests that most participants may be open to the idea of offshore wind energy development in Lake Michigan as long as certain conditions are met.

The one topic that every group agreed on was concern about the visual impact of an offshore wind farm. Some participants expressed this concern as a challenge and other groups identified it as an information gap, but the sentiment was consistent.

Economics was another theme on which the participants agreed. These statements were found mostly among the “challenge” and “information gap” categories. These spanned topics such as how offshore development will impact electricity rates, affect employment, and concerns about shoreline property values.

Summarizing the responses across the county groups, participants in the Delphi Inquiry found that offshore wind energy development in Lake Michigan could be acceptable to the participants if:

- It reduces pollution and dependence on fossil fuels;
- Coastal communities benefit from the projects;
- The public has ample opportunity to participate in the siting process;
- The visual impact is minimal;
- Property values and tourism are not significantly harmed;
- Projects do not lead to substantial utility rate increases;
- Projects do not harm wildlife, recreation, and fishing activities; and
- Technical challenges are overcome, such as ice build-up and transmission limitations.

Conclusions

While this exercise produced valuable insights, the technique does have limitations. The Delphi Inquiry participants were not a random sample of the Michigan population so the conclusions cannot be generalized to Michigan or the coastal counties as a whole. The Delphi Inquiry results do suggest that informed community experts with wide-ranging views can reach agreement on certain aspects of offshore wind energy development. It proved to be a useful method for facilitating group discussion on what has become an emotionally charged issue in West Michigan.

The results of the process can assist citizens and policy-makers in understanding the issues to be considered in siting offshore wind energy developments as well as provide a road map for future investigations on the public acceptance of offshore wind farms.

Please visit our project web site for more information about the benefits and challenges of offshore wind energy in Michigan’s Great Lakes.

Web site: www.gvsu.edu/marec/offshore-wind-info-83