

Shorelines Might Welcome Wind – From A Distance

Opinion survey suggests preference for onshore wind farms.

BY JOHN S. HINGTGEN

An opinion survey of community representatives in lakeshore communities along two of the Great Lakes in the Upper Midwest suggests a strong public preference for onshore wind farms rather than offshore ones. Fully 65% of the respondents chose “on land” and 16% chose “offshore” when asked to estimate where, near their own community, residents would be likely to prefer construction of a wind farm.

This was one of the key findings in a survey that was conducted just as wind became a more visible and popular energy source in states that border Lake Michigan and Lake Superior. The survey gauged community response by questioning selected representatives of the public, including local public officials and officers of interest groups, who were asked to answer the questions based on their perceptions of their own communities.

Respondents were located in counties bordering the lakes along the length of the two shorelines and had lived or worked in their present communities for many years. To help them visualize hypothetical projects, they were provided with photographs of proposed and existing offshore farms from Europe.

Respondents were in one of two

groups. The larger group was made up of public officials in communities bordering the lakeshores. These individuals were planning or other public officials. The second group was presidents or officers of interest groups of one of four types: sportsmen’s clubs, environmental groups, chambers of commerce and land/property owners’ groups. Sixty-three surveys were mailed to the representatives.

Although the sample did not survey a large number of persons, it did solicit opinions from key community representatives who could reasonably be expected to know the outlines of public opinion within their own communities. The survey was mailed to officials in all of the counties within the geographic study area, as well as to the largest cities and a number of interest groups. As an indirect measure of public opinion, it could be expected to provide a good indication of what a direct opinion survey would reveal.

The work was done during the spring of 2003, with the surveys mailed out in February. Follow-up contacts were made to increase the response rate, which totaled 59%. Thirty-seven responses were received, comprising 23 (62%) from public officials and 14 (38%) from interest groups. Respondents tended to have long tenure in their own communi-

ties, with a median of 25 years.

Respondents from communities along the shores of Lake Michigan made up 68% of the total responses, and those from the Lake Superior shore comprised 32%. The Lake Superior shoreline is much less populated than Lake Michigan’s, and it has a lower number of urban centers.

The survey included representatives of the public near the western and northern shores of Lake Michigan and the southern shore of Lake Superior. When asked whether their communities would support or oppose an offshore wind farm in any of the five Great Lakes, 20% expressed support and 50%, opposition.

An even greater preference was found regarding an offshore farm in the Great Lake nearest to their own community, with 9% of respondents expecting support and 64% expecting opposition (Table 1).

Public reactions are a crucial factor in permitting and siting any wind farm in the U.S., and favorable public opinion would be a key test that projects in the Great Lakes would have to pass.

Developing a successful project is far easier in communities that are more receptive, and often it is the planning officials and the interest groups (the two sample groups surveyed in this study) who mediate or advocate in the public debates. The

survey focused on communities near the shores, rather than inland, as these are the ones that would be most affected and would have the most reason to participate in the political process.

At the time of the study, Wisconsin had five wind farms in place. Another project in Washington County (one county removed from the shoreline) had been very contentious in local politics and had been abandoned by the developer. Existing installations in Wisconsin had generally been positively received, but the larger projects had received mixed receptions.

Michigan had two small wind installations, and Illinois had none. Since then, Michigan has hosted one more project, Illinois has received several new projects, and the country as a whole has seen a number of new projects.

Respondents in this study were asked whether community residents were aware of existing wind farms, with 41% saying residents were aware. Seventeen percent said there had been public discussion in their communities about wind farms.

The majority of respondents to the survey thought that offshore wind farms would be perceived as a negative aesthetic element near their communities. View-related reasons were the apparent cause of the majority's preference for onshore farms. Ironically, they were also the reasons cited by those who chose offshore farms. Responses to open-ended questions suggested that the numerical answers were based primarily on respondents' perceptions that the public would find offshore wind farms easier to see than onshore ones, and that residents would find the offshore farms aesthetically negative after construction.

In reality, visual impacts from wind farms could be lower from offshore sites, depending upon their distance from the coast. However, this would depend upon offshore weather, as well as how well onshore

Response	Percent Of Respondents
Opposed	50%
Mid-Scale	30%
Supportive	20%

Source: John S. Hingtgen

	Offshore wind farms	Other offshore energy structures, e.g. drilling platforms
Choosing an infinite minimum acceptable distance (in percent)	32	62
Don't know (in percent)	19	5
Median distance (in miles)	5.0	12.5

Source: John S. Hingtgen

wind farms could be visually screened by landscapes.

Thirty-eight questions were asked of all respondents. A few were open-ended, but most were closed-ended, such as multiple choice, ranking questions, or use of Likert scales, which offered a range of response choices from positive to negative, including a neutral choice.

Some other illustrative results emerged from analyzing the answers. When respondents were asked about likely community responses to an offshore wind farm placed within sight of various listed land uses, the only uses for which "approve" was chosen more than "disapprove" were industrial and agricultural uses.

Respondents were asked to imagine a situation in which a wind farm is at least 3 miles (5 km) directly offshore from their own community. Although 32% chose an infinite minimum acceptable distance up or down the coast to a wind farm, almost twice the percentage, 62%, selected an infinite lateral distance for other types of energy structures like oil or gas drilling platforms (Table 2).

Subsequent questions on the acceptable distances to offshore energy facilities up or down the coast from the community suggested that the public would accept wind farms much closer along the coast than fossil-fuel-related energy structures offshore, with median distances of 5

miles (8 km) for wind versus 12.5 miles (20 km) for oil or gas platforms.

The survey found that offshore turbine and tower colors that blend in would be preferred, with light gray selected as the preferred color by 27% of respondents.

Wind energy in general appeared to be supported by the communities, with 54% of respondents perceiving that their communities would support more wind farms in their own states and 5% perceiving opposition. Among the respondents, 43% estimated there would be support for wind farms near their communities, while 33% predicted opposition.

Previous research has shown that acceptance of onshore wind farms rises after construction, and that public approval of wind farms increases as the public becomes more familiar with wind generators. Recent frequent news stories about proposed offshore projects on the East Coast may be increasing the public's awareness and familiarity with offshore wind farms.

Opposition to wind farms in this survey became apparent, however, with the possibility of siting them on land close to shoreline areas. Only

13% thought their community would support farms on land near the shoreline, while 62% expected opposition. When asked how far inland an onshore farm should be, the median distance chosen was 3.5 miles (5.6 km).

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When asked to order generators by possible fuel, respondents perceived that their communities favored electric generation using the cleaner fuel types.

Implications of these results are in a couple of different forms. There is a need to inform the public about the likely appearance of potential offshore farms. Conveying the message that offshore farms may not be as visible as assumed – because of masking

by weather and the small apparent sizes at typical distances offshore – appears important.

There also is an opportunity to elevate discussions of acceptable uses of the Great Lakes, knowing that they are used heavily for shipping freight, that major industrial areas have been built in places along the shorelines, and that nuclear and fossil-fueled power plants currently operate along the shores. If these conventional uses are acceptable to the public, why should they not accept (cleaner) offshore wind farms?

In addition, there has been some strong opposition to onshore proposals in this area. If offshore wind farms are comparatively less acceptable to the public, it may make onshore sites, with their few impacts, seem more desirable. **SNP**

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