

# PERCEPTIONS OF THE IMPACT OF WIND ENERGY GENERATION IN COASTAL COMMUNITIES

## Community Views

*prepared by the msu land policy institute and the great lakes commission*

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### Introduction

Wind energy can summon strong responses from community residents, whether or not a wind farm has been proposed. Qualifying the reasons for these reactions involves a look into what wind represents for different people in different places.

For some, wind energy means energy security and independence, cleaner air, cleaner water, slowing the effects of climate change or an economic development opportunity. For others wind power developments represent a dramatic change to a community and an industrial incursion into rural landscapes. This may include a change in property values, environmental risks, impaired aesthetics and even a change to a community's identity.

The challenge to objectively considering wind development is in finding the balance between the concerns and anxieties of a community and the benefits they would receive. The way the current system operates, most of the intended benefits of wind energy are felt at the state or national level— jobs may be created throughout a state, or the country may become less reliant on non-renewable sources of energy. Local benefits, including new jobs, a cleaner environment and steadier energy prices, are tempered by real or perceived negative effects of wind. Finding ways to balance the risks and rewards of wind energy is essential. As with all potentially controversial issues, it may not be possible to reach consensus on wind energy, but exploring the issues in depth with a community can help educate those community members who may not have yet formed an opinion on wind power.

In early 2010, the Michigan State University (MSU) Land Policy Institute (LPI) sent a mail survey to 300 randomly selected households in each of the study areas (900 total surveys mailed). Three-hundred seventy-five surveys were returned for a response rate of 45%. The survey consisted of closed-end questions centered on the following themes: attitudes toward commercial wind farm development, perceived effects of wind farms, distributive and procedural fairness and general values and environmental beliefs. Most of the questions asked respondents to consider how they would feel about a commercial wind farm development in or near their community—defined as the township, village or city in coastal Michigan where they live during all or part of the year. The remainder of this factsheet focuses on how the respondents feel about their community, and potential changes to it, as related to wind energy development.



## What We Heard from Our Focus Groups about Visual Issues

### Pros

- None listed

### Cons

- Visually intrusive
- Scale does not fit landscape
- Disturbance of pristine landscapes

### Information Gaps/Remaining Questions

- Visual effects of transmission, roads and construction
- Public attitudes of wind farms after construction

## Opinions of Coastal Residents

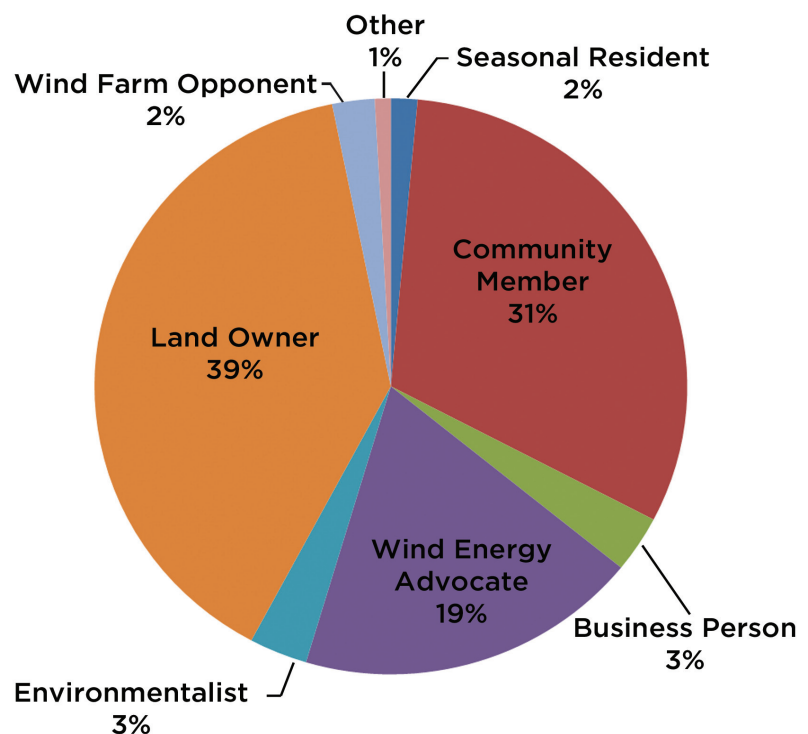
### Identity

When confronted with community issues, individuals often view themselves as being a certain kind of person. Survey participants were asked to select from a list, which kind of person best describes their view of themselves in regards to commercial wind farm development. As indicated in Figure 1, the highest number of responses, 39%, indicate many think of themselves foremost as Land Owners. The two other major descriptions chosen include Community Member at 31%, and Wind Energy Advocate at 19%. Environmentalist and Business Person are tied as the fourth most popular self-identification with 3% each. Wind Farm Opponent and Seasonal Resident are also tied at 2% each, and 1% of those surveyed indicate an “other” preference.

### Strength of Fit

Respondents were also asked how well they fit into the group they had chosen for themselves; 35% of them think they fit well. Those that feel they fit very well into their group account for 29%, closely followed by the 28% feeling neutral. Participants feeling they do not fit well make up 5% and, finally, only 3% indicate they fit very poorly.

Figure 1: Select One Kind of Person that Best Describes How You View Yourself in Regard to Commercial Wind Development



## Opinions of Coastal Residents (Cont.)

### Importance of Group Membership

When asked how important it is for them to be viewed as the group they had chosen for themselves, 31% of respondents are neutral. Close to half of the remaining respondents (42%) feel some level of importance as to whether they are viewed in such a manner, with 22% saying it is important and 20% say it is extremely important. Those respondents feeling it is not important for themselves to be viewed as the group they had chosen for themselves account for 17% and the remaining 10% feel it is not at all important

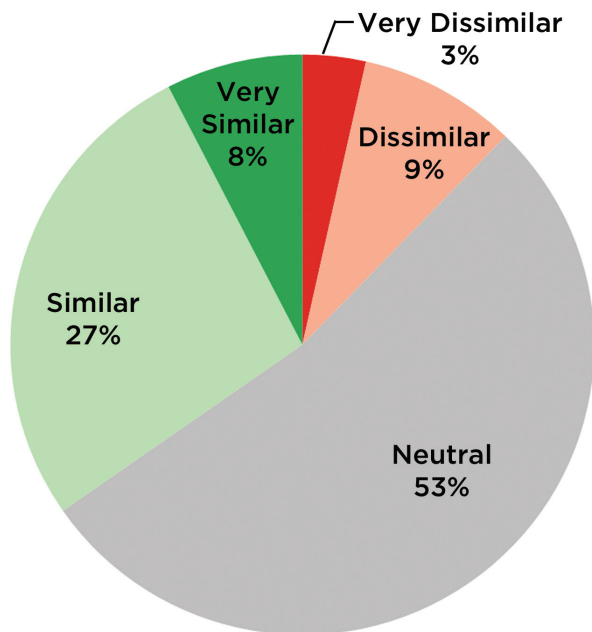
### Similarity

When asked how similar their view on wind farms was to the views of other members of their group, 53% of those surveyed indicate neutrality. More than half of the remaining respondents, 35%, feel their views are similar to other members, with 9% feeling they are not. Finally, 8% indicate their view on wind farms is very similar compared to the 3% that say their view is very dissimilar. See Figure 2.

### Best Place

The survey asked residents to what extent they agree their community is the best place to do the things that they enjoy most. A greater majority of respondents indicate some level of agreement. Almost half,

Figure 2: How Similar are Your Views on Wind Farms to Other Members of this Group?



## Opinions of Coastal Residents (Cont.)

47%, say they agree, while 32% say they strongly agree. Seventeen percent are neutral, and the remaining 4% say they do not agree that their community is the best place for what they enjoy most. Those indicating strong opposition do not account for even 1% of the total responses. See Figure 3.

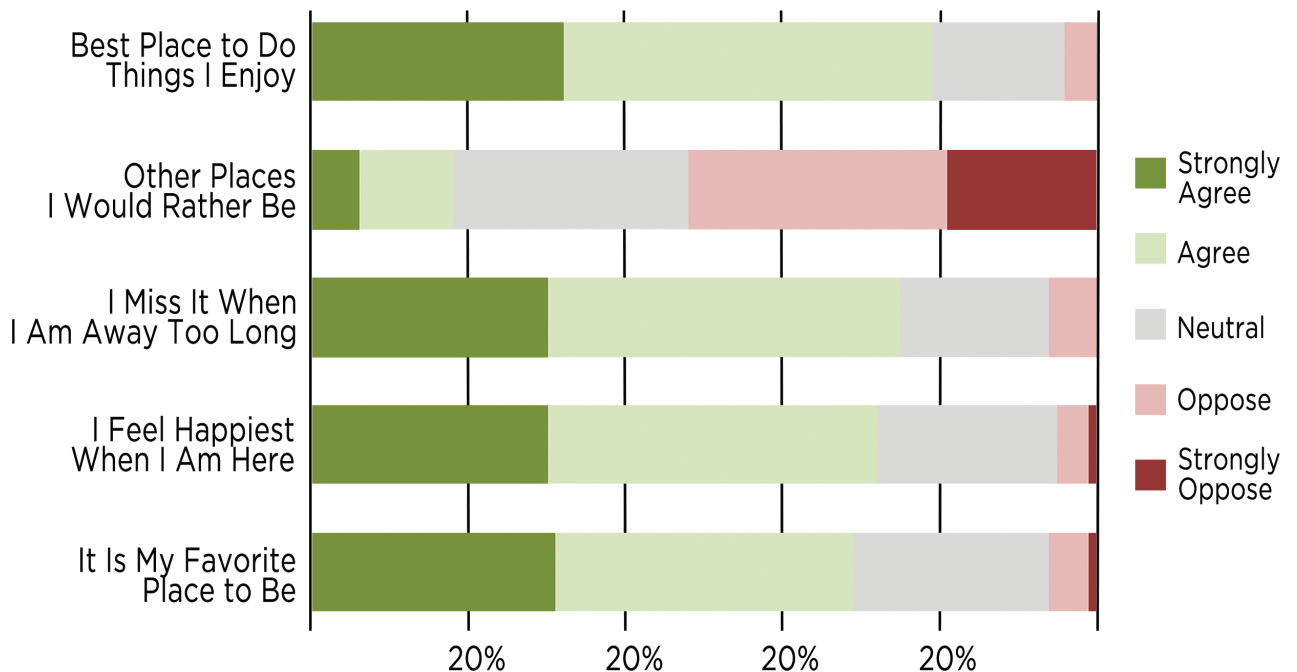
### Places I'd Rather Be

When asked if they agree that there are other places they would rather be, 30% of the respondents are neutral and 30% did not agree. This is followed by 19% in strong disagreement, 12% that agree and 6% that strongly agree there are other places they would rather be.

### Miss It When Away

The majority of participants indicate they do miss their community when they are away for a long period of time. Forty-five percent say they agree, and 30% say they strongly agree. Those feeling neutral represent 19% of the respondents. Only 6% indicate they disagree and do not miss their community when they are away too long, and less than 1% say they strongly disagree.

Figure 3: To What Extent Do You Agree that Each of the Following Statements Describes How You Feel about Your Community?





## Opinions of Coastal Residents (Cont.)

### Incomparable

The majority of respondents agree that for the things they enjoy most, no other place can compare (33% agree and 27% strongly agree). This is closely followed by the 26% that are neutral. Those disagreeing that no other place can compare account for 13% of the respondents, and those that strongly disagree, 1%.

### Discussion

Any large-scale landscape change tends to have resistance associated with it, but there is often more opposition to certain projects from seasonal residents than permanent members of a community. Based on these survey results, however, only 2% of participants identified themselves as seasonal residents. The majority indicated they are Land Owners (39%), Community Members (31%) or Wind Energy Advocates (19%). When asked how well participants fit into their chosen identity group, most were strongly positive or positive, but more than half of these people answered “neutral” to how similar their views on wind farms are to other members of the same group—indicating there is a strong lack of dialogue, even among members of the same community groups. These responses also show that in the areas surveyed, strong pro or anti coalitions have not yet formed, presenting an opportunity for education and outreach before sides are firmly chosen. This may also indicate a need for effective facilitated community dialogue on these issues.



## What We Heard from Our Focus Groups about Quality of Life

### Pros

- Attention and publicity for a community

### Cons

- Safety and public health risks
- Noise in natural areas and rural communities
- The effects of construction
- Shadow flicker
- Lack of experience siting and constructing turbines in populated areas
- Public opposition and conflict

## What We Heard from Our Focus Groups about Quality of Life Information Gaps/ Remaining Questions

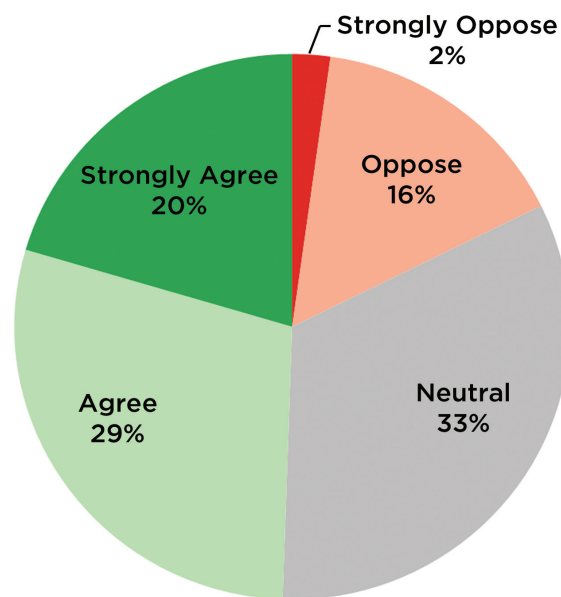
- More data on the effects of noise in rural areas

## Discussion (Cont.)

Residents of coastal communities in Michigan have a strong affinity for their community. Survey results show that no matter how the question is phrased, participants feel a strong connection to the area in which they live and genuinely want to be there. This strong “sense of place” demonstrates why a new, large-scale development with high-level visual impacts, such as a wind farm, might be seen as a negative change, despite community members understanding the positive aspects of renewable energy. Finally, 49% of coastal residents in this survey reported they agree or strongly agree with the statement that they consider their community a reflection of themselves as a person. This further emphasizes the significance and weight of the value a community places in its physical surroundings. See Figure 4.

The strong community loyalties of coastal residents suggest that wind energy developers need to be sensitive of how a community values its landscape. A community that has a high opinion of its locale is not likely to respond positively, at first, to a developer’s claim that a wind project will solve its energy-related needs, because the community may have few perceived problems to begin with. By starting a dialogue within a community, and increasing communication between community members, developers and policy makers will help to create productive conversations, allow residents to understand the views of different stakeholders involved, and enable developers to pursue wind projects with a higher likelihood of being supported by the general public.

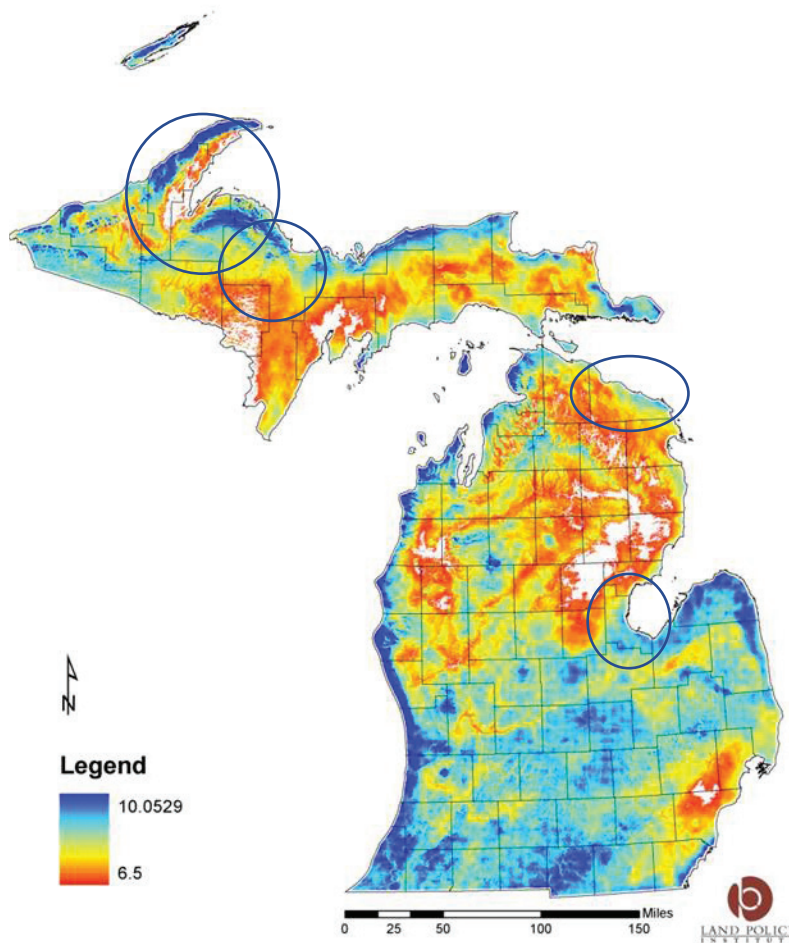
Figure 4: Everything about My Community is a Reflection of Me



## Project Description

Michigan is recognized as a state with strong wind energy development potential. Windy, coastal communities will face pressure to develop wind farms for many years to come. This factsheet is part of a Michigan Sea Grant-funded integrated assessment of wind energy in coastal communities. During 2010, the MSU Land Policy Institute hosted focus groups and surveyed residents in Michigan coastal communities to understand their perceptions of wind energy. As referenced in Figure 5, the coastal community areas selected as the focus of the study included Bay County, Presque Isle County, and a four-county area of the Upper Peninsula (Baraga, Houghton, Keweenaw and Marquette counties).

Figure 5: Map of Focus Area Communities with Wind Resource at 100 Meters (m/sec)



Map Produced by Land Policy Research at the Land Policy Institute, Michigan State University, 2009.

## Wind Farm Development in Coastal Communities Integrated Assessment Factsheet Series

1. Community Views
2. Energy Policy Priorities
3. Regulation Issues
4. Trust and Fairness Issues
5. Impact Perceptions
6. Project Overview

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## Project Description (Cont.)

Through the survey and focus groups, LPI identified the costs, benefits, consequences and optimum approaches for locating wind energy-generating facilities in Michigan coastal communities by assessing multiple factors that affect



their siting. As a result, an integrated assessment tool was developed that these communities can use for creating policy and making decisions about such facilities.

The MSU Land Policy Institute partnered with the Great Lakes Commission, the Great Lakes Wind Collaborative and the MSU Environmental Science and Policy Program throughout this project. These groups also provided assistance to LPI for this project.

This factsheet #WND-1 is part of the Wind Farm Development in Coastal Communities Integrated Assessment factsheet series. Results of the project will assist Michigan coastal communities with assessing multiple factors that affect the siting of wind generating facilities. Communities may use the tool for developing legally and technically sound policy and making decisions about such facilities.

For more information on this project and to view the other factsheets in this series, please visit [www.landpolicy.msu.edu](http://www.landpolicy.msu.edu) and click on the project link in the green "Check out LPI" box in the left-hand column of the site.

*Photos by Martin Boose, front cover; stock photography, pg.5; and John Nyberg, back cover.*

