

Evaluating Potential Wind Energy Conflicts in Coastal West Michigan

INTEGRATED ASSESSMENT

BACKGROUND

Wind energy has the potential to be an environmentally sensitive alternative to fossil fuels because wind is renewable and can be used to generate electricity without emitting greenhouse gases and other pollutants. Michigan's coastal zones possess abundant wind resources. However, wind energy development might present challenges for tourism-dependent lakeshore communities. Poorly sited wind farms may interfere with other uses of the coast, such as recreation, commercial fishing, and nature preservation, and not all communities are prepared to manage these conflicts.

Project Description

This project will explore the potential conflicts with locating wind power facilities in coastal areas of Muskegon, Ottawa, and Allegan Counties. Researchers will examine the issues surrounding wind farms, including the following dimensions:

- Environmental - wildlife impacts, pollution reduction
- Social - citizen involvement in decision making
- Economic - benefits to communities, impacts on tourism
- Aesthetic - visibility of turbines
- Policy - existing local and county regulations

These issues will be assessed through case studies, multicriteria and GIS analysis, and focus group workshops. A conflict map will be used to integrate the energy generating potential of particular locations with the likelihood of environmental, social, and economic conflict.

Expected Outcomes

The goal of this Integrated Assessment is to help communities avoid conflicts over wind energy development. This project will provide:

- Opportunities for stakeholders to consider wind farms in advance of any development proposals
- An assessment of the benefits and challenges for different wind farm locations
- Strategies to avoid or resolve conflicts
- Identification of towns that lack strong regulations
- GIS and visualization tools to help site facilities and minimize negative impacts



Get Involved

The project will bring together multiple stakeholders – government representatives, environmental advocates, business groups, residents, and concerned citizens – to identify potential conflicts with wind farms. Contact (616) 331-8705 or visit the website for information about the project and upcoming meetings.



Michigan Sea Grant enhances the sustainability of Michigan's coastal communities, residents, and businesses through research, outreach and education.



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