Public engagement for offshore wind energy in Michigan

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Photo: DONG Energy

PURE MICHIGAN
Michigan Economic Development Corporation

Sea Grant Michigan

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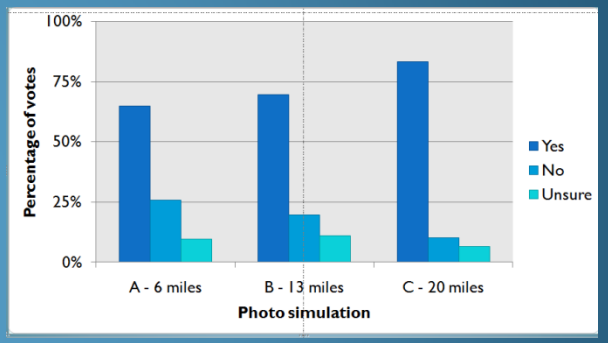
Offshore wind energy has potential to contribute to Michigan's energy portfolio, but barriers exist.

Framing the problem: Great Lakes and electricity generation

Outreach activities: The "Road Show"



Results and Discussion

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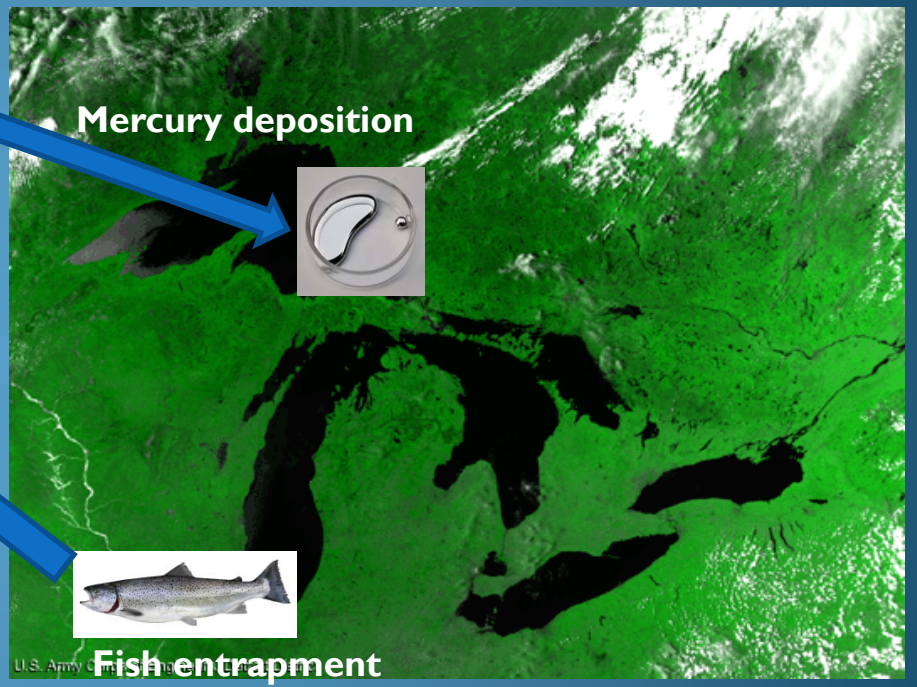
Michigan's Great Lakes and the power system are inextricably connected.



Photos:
E. Nordman – power plant
Michigan Sea Grant – fish
Corbis Images – mercury
US ACOE – Great Lakes

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Michigan residents feel a strong connection to the Great Lakes.

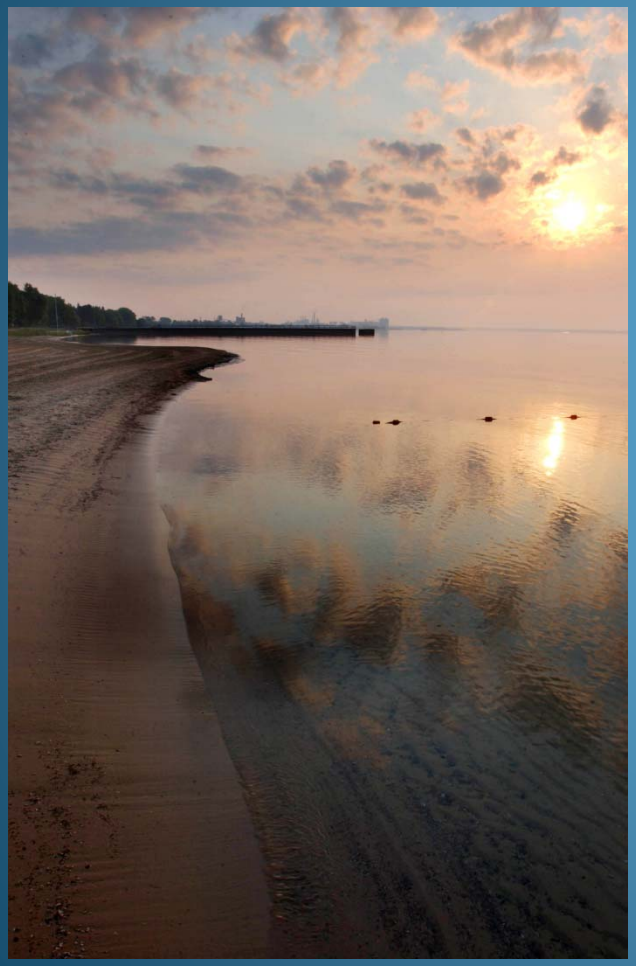

Photo: Michigan Sea Grant

Michigan residents overwhelmingly agree:

- **"Each of us has a responsibility to protect the Great Lakes."**
- **The Great Lakes are "vast, beautiful, relaxing places for recreation."**

-Joyce Foundation survey

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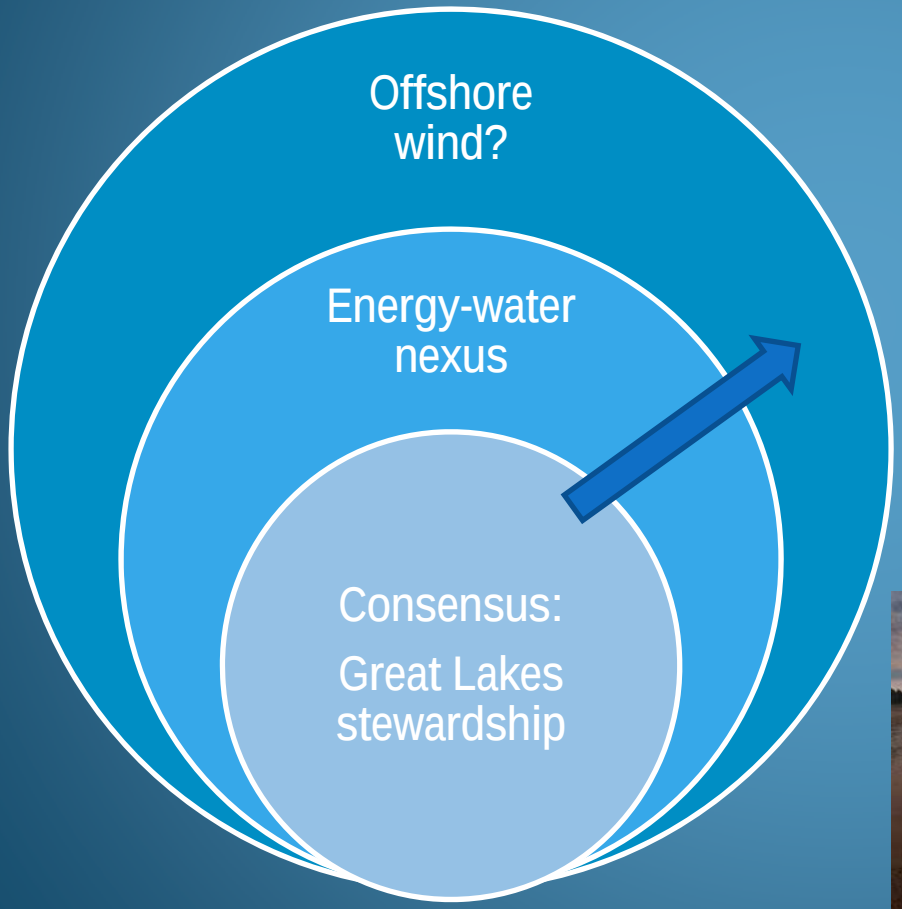
Our outreach strategy was to build from the existing consensus on GL stewardship.



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The "Road Show" included participatory voting, posters, fact sheets, and personal conversation.

Outreach materials

GLOW visualizations and voting jars

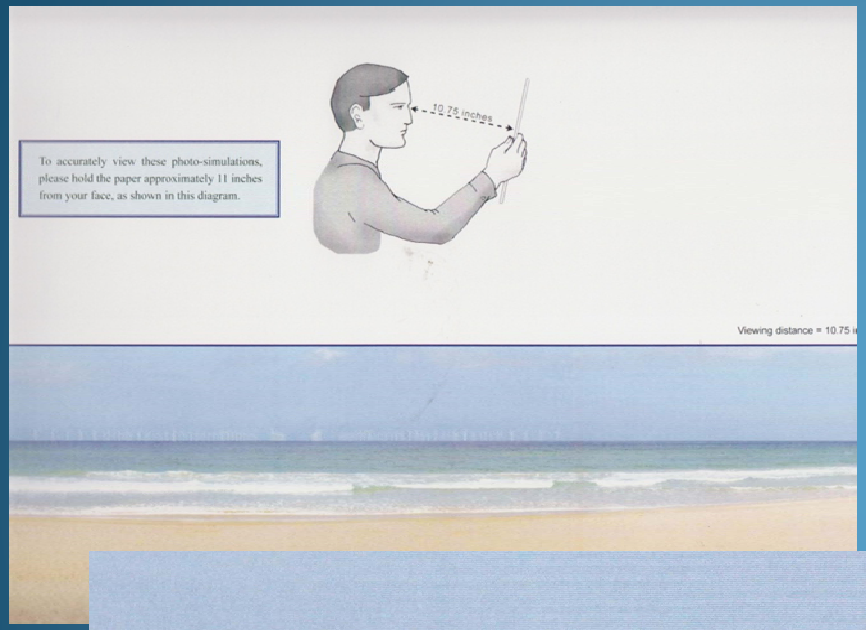
Custom visualization poster

- Interactive GLOW constraints map
- Website
- Facebook

Rationale:

- Go where the people are
- Reach those who would not come to a public meeting

"Road Show": We asked people to vote on whether the visual impact was acceptable.



GLOW Council visualization protocol:

- **U Delaware visual simulations**
- **6, 13, 20 miles**
- **Acceptable, Unsure, Not Acceptable**

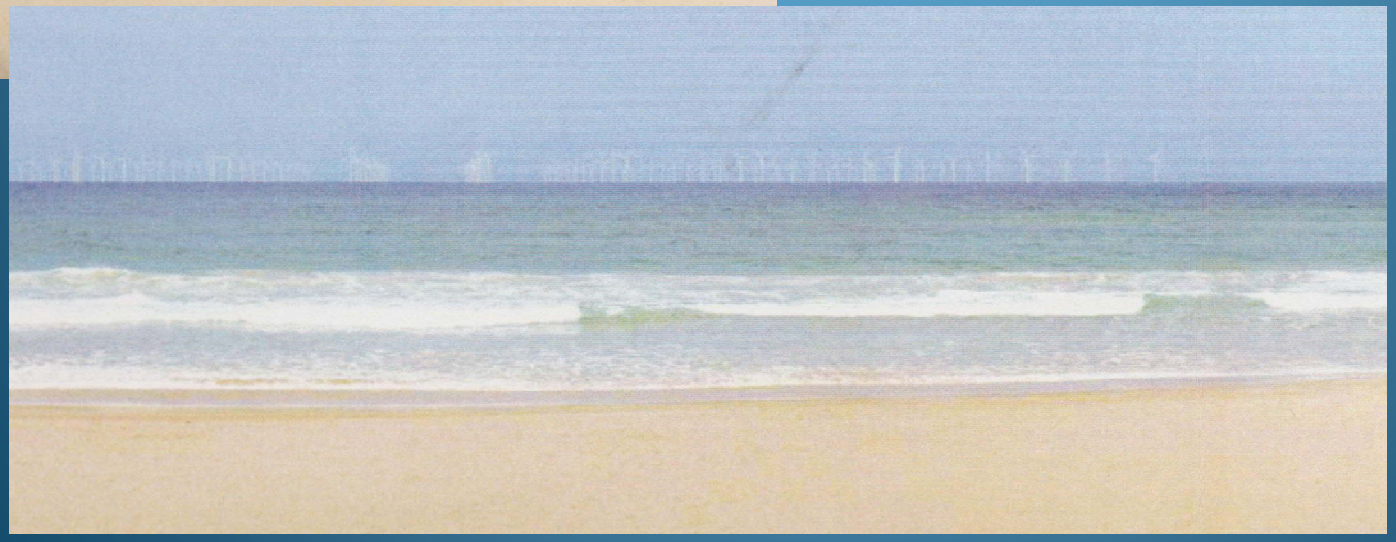


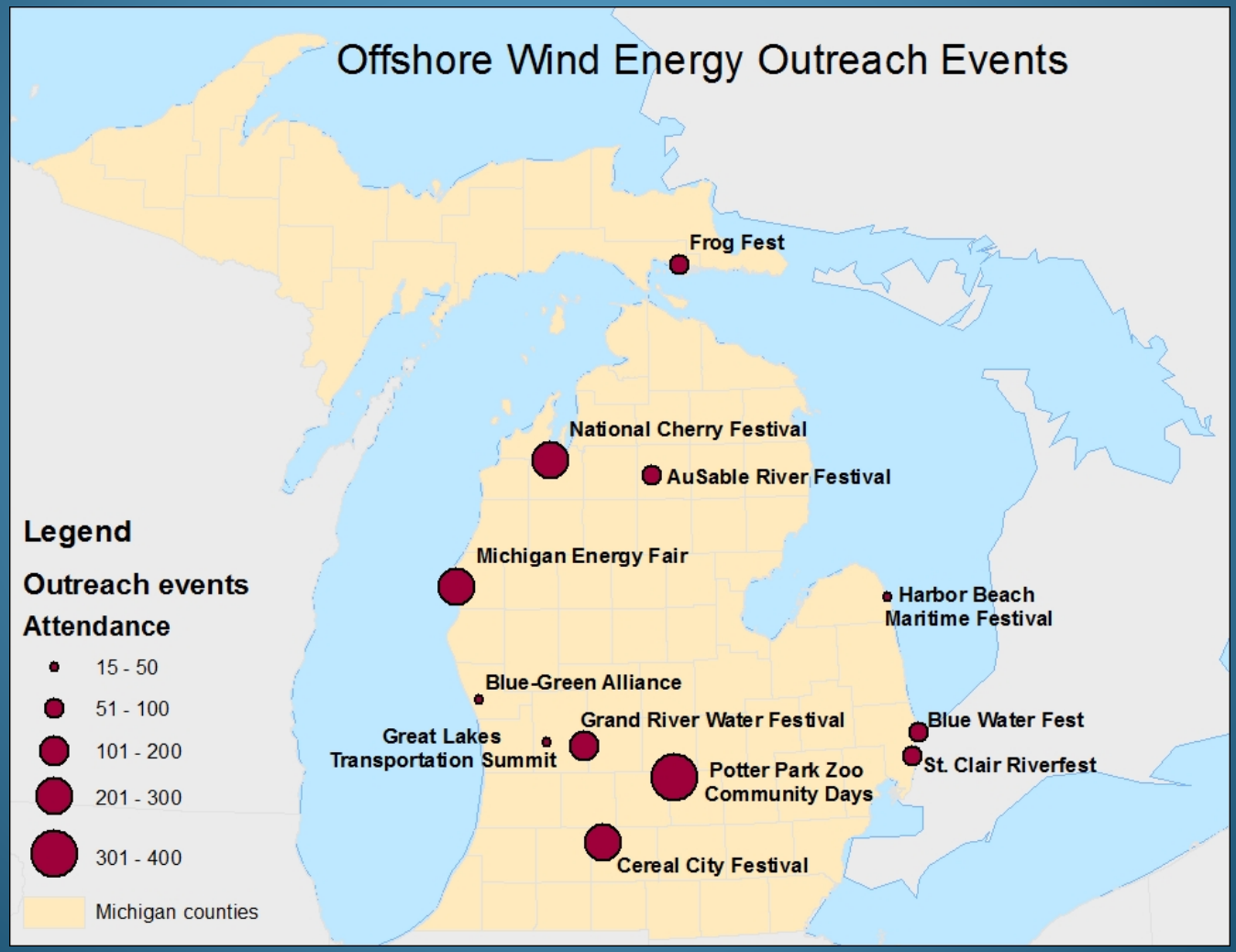
Photo simulation: University of Delaware

We used the CanVis tool (NOAA) to create our own visualization of a 10-turbine wind farm at 6 miles.

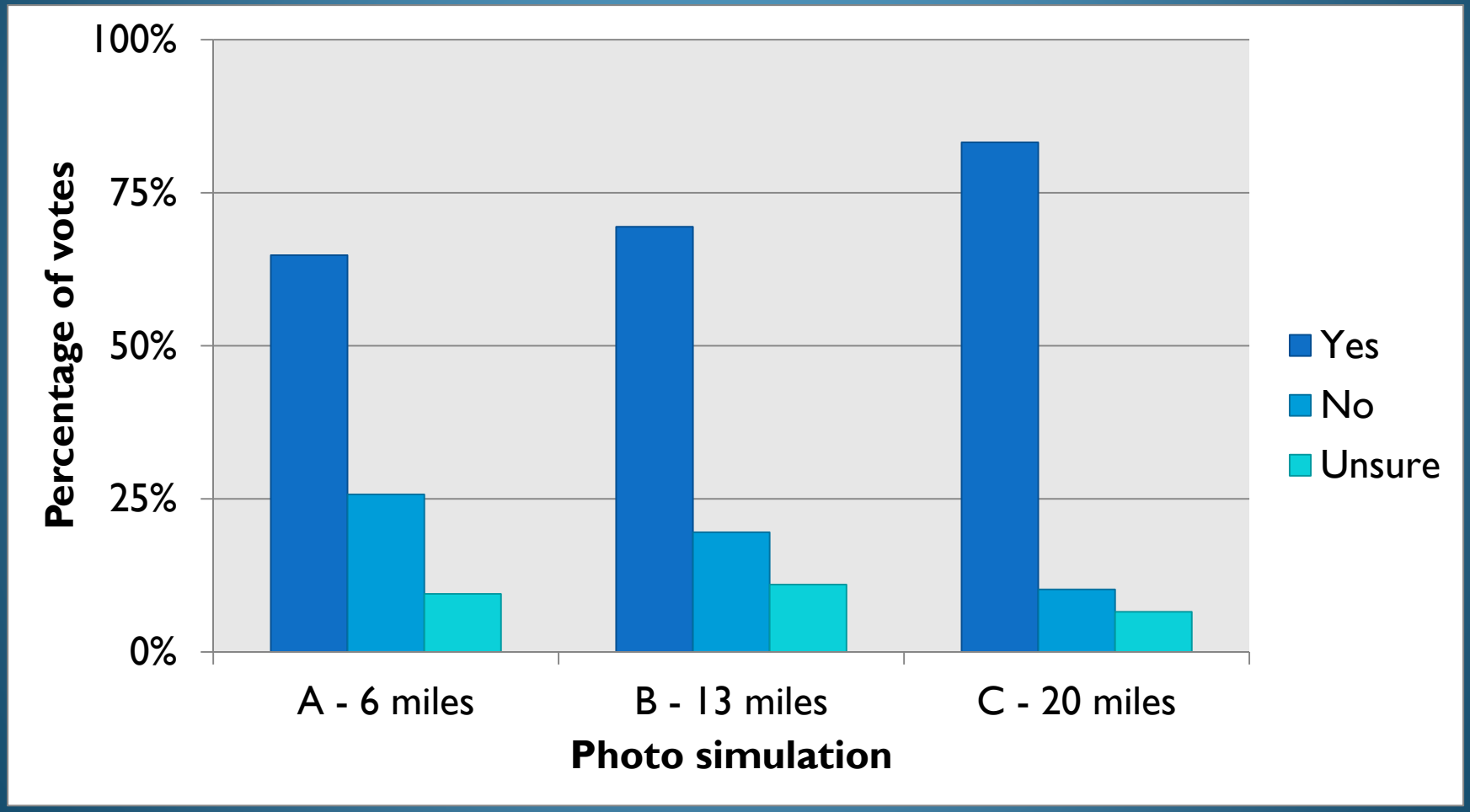
Photo simulation: E. Nordman

More than 1,500 people at 12 locations participated in the Road Show's voting exercise.

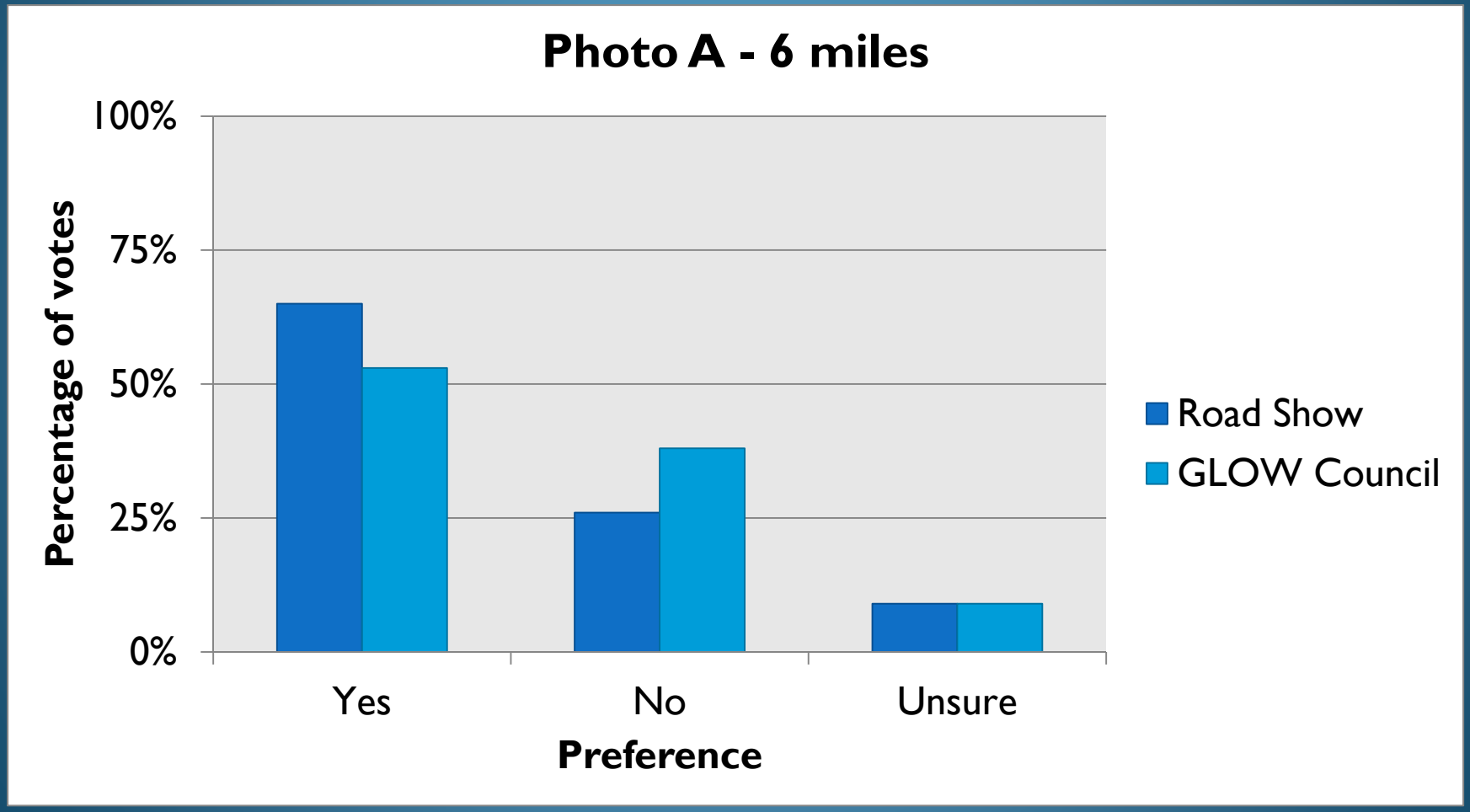
Attendance **is number of voters participating**



65% of participants found the visual impact of Photo A (6 miles) to be acceptable.



The "Road Show" participants were more accepting of the visual impact than GLOW Council meeting attendees.



The primary goal was outreach and education, not data collection. A formal, statewide survey is needed.

Benefits

One-on-one conversation
Diversity of:
- •Geography
- •Ethnicity
- •Age
- •Awareness

Challenges and Limitations

- •Informal setting
- •Limited data
- •Potential lack of standardization
- •Engagement prioritized over data
  - •Some children voted

Photo: C. Haven, J. Hummer

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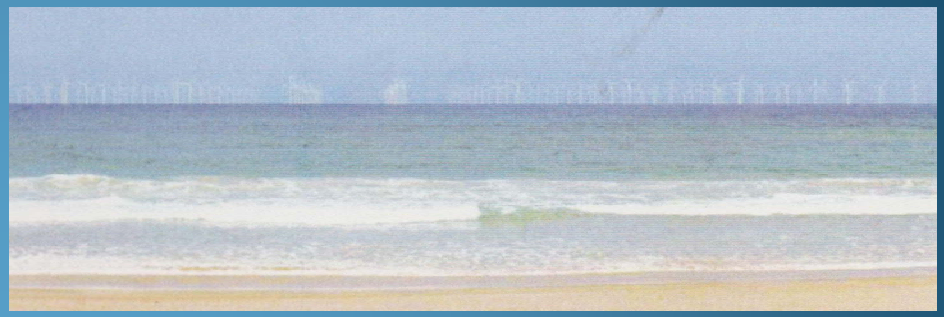
The team reached its goal of engaging the public in the discussion of offshore wind energy in Michigan's Great Lakes.

Some participants did not know that turbines could be placed in the water.

The number of wind turbines in the GLOW simulations were more problematic than the distance.



"While I prefer an absolutely unblemished skyline, we are past the time of having the luxury of perfection. There are no good choices left; only necessary ones."

-Anonymous booth visitor

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The last piece involves a town hall meeting video-chat on offshore wind energy.

Problem: Michiganders have no experience with offshore wind.

→ Uncertainty and fear of unknown

Communities in Europe host offshore wind farms

Solution: connect Michiganders with residents of European host community

NoordzeeWind project in North Holland located 6 miles offshore from beach community

Tourism and sustainability officials from North Holland will participate in a workshop with Michigan residents

Date: late fall 2011

Other news: GVSU launched its offshore wind assessment buoy on Friday.

- NOMAD buoy
- Laser sensor
- Bird and bat acoustic detectors
- Array of water quality sensors

Thank you.

- **Sponsors**
  - Michigan Energy Office
  - Michigan Sea Grant
- **Collaborators**
  - C. Bradley
  - C. Haven
  - J. Hummer
  - V. Pebbles
  - J. VanderMolen
  - K. Walton

http://www.gvsu.edu/marec/offshore-wind-info-83.htm

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The difference in acceptance persisted through all three photo simulations.