

Wind Energy: Iowans Perspective of Turbines
Kesley Holdgrafer and Ellie Moser

Introduction: We created a survey project to gauge how Iowans perceive wind turbines. We intend to survey a non-random sample of 70 attendees from Iowa at the Iowa Energy Summit at Prairie Meadows in Altoona on November 8th, 2024.

Questionnaire:

1. What is your age?
 - a. 25 or younger
 - b. 26-30
 - c. 31-45
 - d. 46-55
 - e. 65+

- 2.. What is your Gender
 - a. Male
 - b. Female

3. Have you ever lived near a wind farm or turbine?
 - a. Yes
 - b. No

4. What best describes your occupation?
 - a. Farmer
 - b. Landowner
 - c. Policy Maker
 - d. Business Owner
 - e. Teacher
 - f. OTHER

5. On a scale of 1-5 how important do you think renewable energy sources, like wind energy, are for addressing climate change(1 being not important and 5 very important) Please circle your answer:

1 2 3 4 5

6. Would you support the construction of new wind turbines in your area?
Option 1: strong support

Option 2: somewhat support

Option 3: somewhat oppose

Option 4: strongly oppose

7. How would you rate the overall impact of wind turbines on Iowa's economy?
 - a. Very positive
 - b. Somewhat positive
 - c. Neutral
 - d. Somewhat negative
 - e. Very negative

8. Which factor do you believe is the primary driver of Iowa's investment in wind energy?
 - a. Environmental concerns
 - b. Economic benefits
 - c. Government incentives
 - d. Technological advancements

9. In your opinion, what is the biggest barrier to the further expansion of wind energy in Iowa?
 - a. Opposition from local communities
 - b. Grid integration challenges
 - c. Regulatory hurdles
 - d. Lack of investment capital

10. How important do you think it is for Iowa to diversify its energy sources beyond wind power?
 - a. Not important at all
 - b. Slightly important
 - c. Moderately important
 - d. Very important
 - e. Extremely important

11. Which aspect of wind energy development do you believe should be prioritized for improvement in Iowa?
 - a. Turbine efficiency and performance
 - b. Environmental impact mitigation
 - c. Community engagement and acceptance
 - d. Infrastructure and transmission capabilities

12. How confident are you in Iowa's ability to achieve its renewable energy goals, primarily driven by wind energy, by 2050?

- a. Very confident
- b. Somewhat confident
- c. Neutral
- d. Not very confident
- e. Not at all confident

13. What do you perceive as the most significant benefit of wind energy for Iowa's rural communities?

- a. Job creation and economic development
- b. Increased tax revenue for local governments
- c. Land lease payments for farmers and landowners
- d. Enhanced energy independence and security

14. How concerned are you about the impact of wind turbines on wildlife, such as birds and bats?

- a. Not concerned at all
- b. Somewhat concerned
- c. Moderately concerned
- d. Very concerned

15. How would you rate Iowa's current efforts in promoting community engagement and public participation in wind energy projects?

- a. Excellent
- b. Good
- c. Fair
- d. Poor

Focus Group Questions

The focus group will consist of participants representing diverse demographics and perspectives related to wind energy in Iowa. The focus group will take place during the Iowa Energy Summit at Prairie Meadows in Altoona on November 8th, 2024. This focus group will include:

- A mix of genders, occupations (including but not limited to farmers, landowners, policymakers, business owners, and educators), and levels of support for wind energy development.
- 4 individuals aged 25 or younger
- 4 individuals aged between 26-45
- 4 individuals aged 46 or older
- 4 individuals with direct experience living near wind farms or turbines at any age

The focus group will convene at the Summit in a comfortable setting good for open discussion in a conference room, allowing for in-depth exploration of participants' viewpoints and insights.

1. Can you describe any personal experiences or anecdotes related to the presence of wind turbines in your community, and how they have impacted your daily life or surroundings?
2. What do you perceive as the most significant benefits or drawbacks of wind energy development specifically for rural communities in Iowa, and how do these factors influence your overall stance on wind energy?
3. How do you believe the perception of wind energy differs between urban and rural populations in Iowa, and what factors do you think contribute to these differing perspectives?
4. Considering the long-term sustainability of wind energy projects, what measures do you think should be prioritized to minimize environmental impacts and ensure the preservation of natural resources in Iowa?
5. In your opinion, what role should local communities play in the decision-making process regarding the placement and development of wind turbines, and how can community input be effectively incorporated into planning and implementation?
6. How do you envision the future landscape of Iowa's energy sector, particularly in terms of the balance between traditional fossil fuels and renewable sources like wind energy, and what challenges do you foresee in achieving this transition?
7. Can you share any innovative or alternative approaches to wind energy development that you believe could address current concerns or improve the overall sustainability and acceptance of wind projects in Iowa?
8. Reflecting on broader societal trends and attitudes towards renewable energy, how do you think public perception of wind energy in Iowa may evolve in the coming years, and what factors might drive these changes?

These questions aim to explore different dimensions of the topic, encouraging participants to share their perspectives, insights, and potential solutions related to wind energy in Iowa.

Reflection:

This survey, conducted at an Iowa energy conference, focuses on Central Iowans' perspectives on wind turbines and energy, aligning with the conference's thematic focus. While participants may not find the survey's subject matter surprising due to the conference's focus, they might be surprised by the detailed questions designed to gather their true perception of wind turbines and energy in Iowa. The specific questions about economic, environmental, and societal aspects could enable the participants to think even deeper about this topic. As they reflect and progress through the survey, ending with the question about their confidence in Iowa's renewable energy goals, participants might be surprised by their own responses to this question. Overall, this is a thought-provoking survey and that could be the biggest surprise to participants.

The data gathered from this survey will serve as a valuable resource for informing and shaping agricultural communication initiatives related to wind energy. By analyzing the responses from participants ag communicators can gather the overall perception of how Iowans perceive wind energy in Iowa. When a summary is made and key themes and concerns are identified these ag communicators can create priorities to focus on wind energy in Iowa. For instance, this information can be used to create strategies for specific wind energy projects that focus on enhancing public understanding, addressing misconceptions, and developing stronger community engagement with the future. Most importantly, insights from this survey could also assist in creating educational materials and targeted message campaigns because they would know how Iowans already perceive wind energy.

One of the biggest challenges this survey could face when conducting its research is ensuring diverse participation. The most ideal range of participants would include individuals with diverse backgrounds that represent either farmers, landowners, policymakers, and more. This would ensure that the research from this survey is the truest perception of Iowans because it represents more than just one demographic. By conducting this survey at the Iowa Energy Summit conference there is the possibility that we will gather responses from individuals that represent each one of those sectors, however, this is not guaranteed. This would be the biggest challenge of the survey.