What Windfarms Mean for Local Communities

Sarah Mills, PhD
University of Michigan
What I’ll cover

• Surveys of landowners
  – Who was surveyed
  – Individual impacts
  – Community impacts

• What should you consider?
2016 Community Survey

- Owners of land assessed ag or residential
- 10 townships with windfarms
- 2,013 responses (53% response rate)
- Funded by C.S. Mott Foundation
2014 Farmland Survey

- All owners of land assessed ag
- 14 townships
  - 9 with windfarms
  - 5 without
- 1,210 responses
  (72% response rate)
- Funded by Dow Fellowship
Overall drivers of attitudes

- Direct compensation
- Type of land owned
- Being within earshot of turbines
- Attitudes about process, wind developer
Individual-level Impacts

- Noise
- Visual
- Health
- Property value
- Farm income
- Farm succession
Individual-level Impacts

- Noise
- Visual
- Health
- Property value
- Farm income
- Farm succession

Turbines create noise pollution

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Individual-level Impacts

Turbines create visual/aesthetic problems

- Noise
- Visual
- Health
- Property value
- Farm income
- Farm succession

All Paid Unpaid

24 25 27
14 19 27
39 46 37
12 22 10

Strongly agree
Agree
Strongly disagree
Disagree
Individual-level Impacts

- Noise
- Visual
- **Health**
- Property value
- Farm income
- Farm succession

Turbines cause human health problems

- Strongly agree
- Agree
- Strongly disagree
- Disagree

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Individual-level Impacts

- Noise
- Visual
- Health
- Property value
- Farm income
- Farm succession

Turbines decrease nearby property values

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<td>Farm succession</td>
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</table>
Individual-level Impacts

- Noise
- Visual
- Health
- Property value
- Farm income
- Farm succession

Investments over 5 years: 2009-2013

- Non-windfarm: $187k
- Unpaid neighbors: $180k
- Neighbors in pool: $193k
- Turbines: $449k

- Home
- Outbuildings
- Drainage/Irrigation
- Equipment
Individual-level Impacts

- Noise
- Visual
- Health
- Property value
- Farm income
- Farm succession

% that have farm succession plan

<table>
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<td>Non-windfarm</td>
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<tr>
<td>Neighbors in pool</td>
<td>62</td>
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<tr>
<td>Turbines</td>
<td>80</td>
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</table>
Individual-level Impacts Take-aways

• Views on noise, visual impact, property values roughly 50/50
  Financial stake = rosier view
  OR
  no financial stake = more soured view
  **BUT STILL SPLIT OPINIONS**

• Most don’t see health impacts

• Having turbine on property is linked to additional on-farm investment, succession planning
Community-level Impacts

• Job creation
• Roads
• County services
• Relationships with neighbors
Community-level Impacts

- Job creation
- Roads
- County services
- Relationships with neighbors

Turbines create jobs

- All Paid Unpaid
- 21 31 18
- 57 54 58
- 15 10 17
- Strongly agree
- Agree
- Strongly disagree
- Disagree
Community-level Impacts

- Job creation
- **Roads**
- County services
- Relationships with neighbors

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<tr>
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<td>5</td>
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Community-level Impacts

- Job creation
- Roads
- County services
- Relationships with neighbors

$2.749 Million to county gov’t in Huron County in 2015

Turbines’ effect on county services

- Greatly improved
- Somewhat improved
- Neither
- Somewhat worsened
- Greatly worsened

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Community-level Impacts

- Job creation
- Roads
- County services
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Turbines’ effect on relationships with neighbors

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Community-level Impacts Take-aways

• Most see job creation (with caveat about types of jobs)

• Majority haven’t seen changes to county services
  – Increasing cost of services, declining revenues over time may limit visible impacts

• Majority don’t think it’s divided community
  – Even in some pretty contentious projects
Would they welcome more wind development?

- Quality of life
- Willingness to accept new turbines
Would they welcome more wind development?

- Quality of life
- Willingness to accept new turbines

Turbines’ effect on overall quality of life in township

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Would they welcome more wind development?

- Quality of life
- Willingness to accept new turbines

Willingness to host additional turbines in your township:

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<tr>
<td>Strongly oppose</td>
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WHAT SHOULD YOU CONSIDER?

How to reap the benefits without the heartburn
How does this fit with your long-term plan?

- If goal is for substantial residential development or growth of tourism, wind may not be right
  - These landowners less likely to directly benefit
  - Some may be deterred from building

- If goal is to sustain agriculture, wind can fit
  - Farm diversification & succession
  - Adds to property tax base
  - Siting on property lines takes little land out of production
  - Compatible with PA 116

Economic development opportunity, but not for all counties
The ideal zoning ordinance?

Support/oppose additional turbines in township, by zoning setback distance

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<td>Somewhat oppose</td>
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25
The importance of process

Support/oppose additional turbines in township, by agree/disagree opportunity to participate in planning

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“I had ample opportunity to provide input during the wind project planning stage.”
The importance of transparency

Support/oppose additional turbines in township, by agree/disagree wind developer acted transparently

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“The wind project developer acted openly and transparently throughout the planning process.”
Don’t be afraid to ask questions

• About who benefits, business model
• Amount of tax revenue
• The impacts (noise, flicker) on specific homes
• Typical siting schemes
• Decommissioning

• Invite me to your county!
  – Grant from C.S. Mott Foundation covers my expenses
  – I can give a presentation, or just answer questions
The CLOSUP Wind Project

Sarah Mills, Project Manager
Phone: (734) 615-5315
Email: sbmills@umich.edu
Web: www.closup.umich.edu/wind