Siting Renewable Energy in Rural Communities

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NCRCRD Webinar, 4/25/23
Michigan Context

• State-wide renewables requirement lapsed
• Utility plans calling for 4x increase in renewables
• Technology (wind), cost reductions (solar) making renewables possible statewide
Existing utility-scale wind & solar 4,348 MW

Source: U.S. Energy Mapping System, April 7, 2023
https://www.eia.gov/state/maps.php

3,579 MW Wind
769 MW Solar
Projects under consideration: 21,202 MW

20,278 MW  Solar
925 MW  Wind

Source: MISO Queue, November 21, 2022
https://api.misoenergy.org/PublicGiQueueMap/index.html
Why so much activity in particular places? DOE: Energy Community Tax Credit Bonus

Source: Department of Energy: Energy Community Tax Credit Tool, April 7, 2023: https://arcgis.netl.doe.gov/portal/apps/experiencebuilder/experience/?id=a2ce47d4721a477a8701bdoeo08495e1d
Huge opportunity for Rural communities

Wind energy can help American farmers earn money, avoid bankruptcy
But also risks poses risks

Proposed solar energy developments draw opposition over loss of farmland

next money crop for farmers: solar panels

Rural Communities Divided over Wind Power: Is There Another Way?
Time to strategize
- How it fits with community goals
- Which technologies, at which scales, in which part of community

Seek out solid information about local impacts
- Positive and negative
- State-specific

Set clear expectations for property owners and potential developers
- Send message

All communities will be approached within 10 years

“Help communities set policies for renewable energy”

• Meet community where they are, with the tools they need

• Don’t re-create the wheel
  – Curate / elevate best examples
  – Only create new to fill in the gaps

• Utilize the network
• 2019 first pass
  – Who is responsible?
  – Lots of silence on solar

• 2021 update
  – Solar zoning up 47%
  – Wind zoning up 8%

• Still 25% silent on renewables

• 6-state SETO-funded database
  – Released TODAY
    https://energyzoning.org/
Planning and zoning resources

- Curated repository of templates, guidance
  - https://www.michigan.gov/egle/about/organization/materials-management/energy/communities

- Creation of case studies / FAQs
  - 18+, written by experts, students across the state
Sample solar ordinance – with MSU-Extension

- Oct 2021: Release guidebook
  - NACDEP National award

- Mailed to all 1,856 jurisdictions

- May 2022: MSUE Guidebook Training

- Sept/Oct 2022: MAP, MTA presentations

- Overlay template, energy storage guide in-the-works

https://extension.msu.edu/solarzoning
Renewable Energy Academy

- Introductory webinar / event
  - MAP, MTA, MSUE, NEMCOG

- Bus tour

- Deep-dive, “bring your ordinance” workshops

- Ordinance review
  - “What message are you sending?”

https://graham.umich.edu/rea
Works in Progress

• MI REDI: community engagement program

• Community-Centered Solar Development: DOE grant to understand perceptions of process, distribution of benefits, project design on local attitudes; develop a proactive community engagement process
  — Contact me if interested!

• Economic Impacts of Solar on Farmland: DOE grant with MSU, Iowa State

• Building a Network of Practitioners:
  — https://graham.umich.edu/project/2022-extension-and-renewables-convening
Questions?

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