



WIND ENERGY RESEARCH & DEVELOPMENT

Stakeholder Engagement and Social Science

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Stakeholder Engagement and Social Science

Disseminating wind energy information, developing wind energy tools and resources, and researching community impact issues to increase public acceptance of wind energy deployment and build connections with wind energy stakeholders.



Information, Tools, and Resources

Disseminating wind energy information and providing access to wind energy tools, maps, and other resources



Outreach and Engagement for Community Impact Issues

Researching local acceptance associated with wind energy deployment impacts



Social Science Research of Wind Energy Acceptance

Connecting decision makers with topical experts and fact-based information to steward wind energy expertise in planning and siting



Information, Tools, and Resources

- Through the WINDEXchange platform, the National Renewable Energy Laboratory (NREL) provides resources to help communities navigate the impacts associated with wind energy siting and planning. Our fact-based information helps consumers make more informed energy decisions.
- In addition to facilitating technical assistance for public wind energy inquiries, NREL also conducts analyses and provides foundational siting information to illuminate the impacts of wind energy to local communities.

Areas of Expertise

- Siting, permitting, and project development
- Cost/benefit analyses
- Partnerships/collaborations.

Current Projects

Wind Energy Economic Development Guide



INFORMATION, TOOLS, AND
RESOURCES (WINDEXCHANGE
PLATFORM)



CHALLENGE

Provide communities with accessible information and best practices to navigate economic development through wind energy projects.

APPROACH

NREL researchers are working with several partner organizations to draft a web-based wind energy economic development guide. The team is compiling this document to share wind energy basics along with information related to revenue potential, community impacts, and business and local workforce development.

IMPACT

Because most economic impact research focuses on quantitative modeling, the information is not accessible for nontechnical community audiences and key political decision makers. Our web-based guide will help bridge this gap.



Outreach and Engagement for Community Impact Issues

- WINDEXchange is the national platform that provides fact-based, neutral information and facilitates forums for information exchange to help communities navigate impacts associated with wind energy siting and planning.
- We collaborate with partners to share experiences and best practices, develop and provide information tools and resources, and address community siting and planning needs through access to issue-based expertise and knowledge.

Areas of Expertise

- Assessing community impacts
- Technical assistance to mitigate siting and planning barriers
- Engagement activities that facilitate information exchange.

Current Projects

County Commissioner
Workshop



OUTREACH AND ENGAGEMENT
FOR COMMUNITY IMPACT ISSUES



CHALLENGE

Engage county-level planners and decision makers to advance wind energy dialogues necessary to mitigate perceived siting and permitting barriers.

APPROACH

NREL conducted a scoping review to identify steering committee members and potential partners to participate in a workshop on the current state of wind energy community impacts. Information collected from surveys prior to, during, and after the workshop is being analyzed to inform information resource materials.

IMPACT

Gaining a local perspective helps researchers identify needed resources for addressing siting concerns. This workshop format can now be replicated in other locations to continue gathering, assessing, and sharing data.



Social Science Research of Wind Energy Acceptance

- There is a growing need to understand factors that influence stakeholder opinions about wind energy and how they impact wind project deployment.
- Through domestic and international collaborations, NREL is gathering and assessing input to create a research strategy addressing this need.

Areas of Expertise

- Original research and data collection
- Levelized cost of energy impacts
- Community engagement.

Current Projects

U.S. Lead for IEA Wind Task 28:
Social Science of Wind Energy
Projects



SOCIAL SCIENCE RESEARCH OF
WIND ENERGY ACCEPTANCE



CHALLENGE

Provide information and resources about wind energy projects because local opposition is often tied to misinformation and misunderstanding of potential impacts.

APPROACH

Acting as International Energy Agency (IEA) Wind Task 28 Co-Operating Agent and U.S. Lead, NREL facilitates foundational social science research, which is essential to mitigating the effects of wind's impacts on communities.

IMPACT

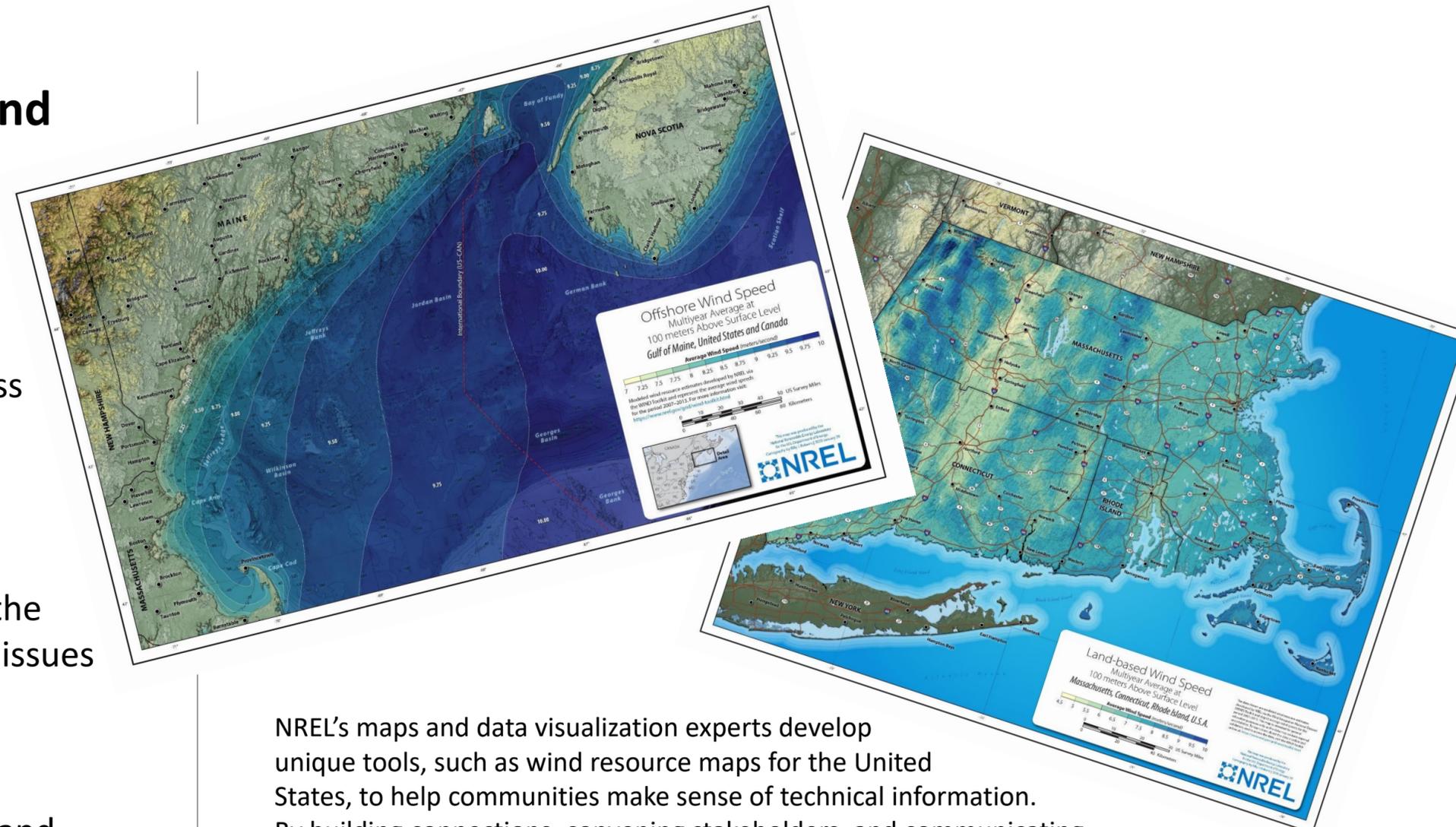
Facts based on social science research can support both wind energy developers and those living near wind energy facilities by quantifying wind's positive impacts on communities.

Accomplishments & Impacts



NREL's focus on stakeholder engagement and social science research—coupled with our information tools and resources—puts us in a unique position to:

- **Build connections**—NREL's technical experts work across the spectrum of wind energy stakeholders, including government, industry, communities, and various interest groups.
- **Convene stakeholders**—NREL's experts bring together the right stakeholders to exchange information and discuss issues based on facts and technical knowledge.
- **Communicate technical information to nontechnical audiences**—tools developed by NREL, such as the Jobs and Economic Development Impact model, help communities assess and understand the impacts of wind energy projects.



NREL's maps and data visualization experts develop unique tools, such as wind resource maps for the United States, to help communities make sense of technical information. By building connections, convening stakeholders, and communicating complex data in an easy-to-understand way, communities that don't have their own technical resources can make informed decisions about wind energy projects.