Connecting Communities to Wind Resources

WINExchange is a platform that shares the best available science and fact-based information on wind energy to enable U.S. communities to:

- Make wind development decisions using the suite of WINExchange resources and tools
- Understand siting, permitting, and installation processes
- Weigh the costs and benefits of wind energy
- Collaborate or partner with many organizations, including non-governmental organizations, academia, and national laboratories.

WINExchange is supported by the Wind Energy Technologies Office at the U.S. Department of Energy. Facilitated by the National Renewable Energy Laboratory, WINExchange aims to enable well-informed decisions about the appropriate development of wind energy. WINExchange focuses on the dissemination of quality and unbiased information to the public, communities, businesses, organizations, and state and local governments about wind technology as a viable renewable energy option across the nation.

Featured WINExchange Resources

**Consumer guides:** Find accurate and trusted research on how to best determine your home’s or community’s wind energy options, from installing a small wind turbine on your property to developing a community wind project.

*Featured resources include:* Small Wind Guidebook and Community Wind Handbooks

**Economic analysis:** Calculate the number of jobs and magnitude of economic impacts to a local area that would result from installing a distributed or utility-scale wind project based on user-entered, project-specific data or default inputs based on industry norms.

*Featured resources include:* the Jobs and Economic Development Impact (JEDI) models and related technical reports and fact sheets

**Education and workforce development:** Learn about workforce development initiatives, including the U.S. Department of Energy Collegiate Wind Competition, the Wind for Schools project, higher education and training programs, and wind energy curricula.

*Featured resources include:* a Wind Career Map and a map of wind energy educational and training programs

**Tools for policymakers:** Review a collection of U.S. wind turbine ordinances that are important reference documents for state and local government policymakers.

*Featured resources include:* a U.S. wind ordinance database and annual reports on the state of wind energy in U.S. regions

**Project planning best practices:** Learn about the stages of planning a wind energy project, including reviewing site selection research, economic costs, and incentives; assessing wildlife impacts; and understanding community impacts. A range of tools on WINExchange facilitates addressing wind development challenges.

*Featured resources include:* environmental impact resources, land-based wind energy guidelines, and resources focusing on wind energy’s impacts on neighbors and communities

**Fact-based information:** Access webinars, publications, podcasts, technical reports, and informational slideshows. Learn about the latest wind industry news and events by subscribing to the WINExchange biweekly newsletter at winexchange.energy.gov/subscribe/

*Featured resources include:* the National Offshore Wind Strategy produced by the U.S. Department of Energy and the Department of Interior’s Bureau of Ocean Energy Management and a webinar for college students to learn about the Collegiate Wind Competition.

Cedar Creek Wind Farm in Grover, Colorado. Photo by Dennis Schroeder, NREL 30585
Wind Energy Regional Resource Centers

Located across six U.S. regions, Regional Resource Centers (RRCs) provide local information about wind energy. RRCs are comprised of organizations that provide fact-based resources from a range of local leaders with technical and community expertise.

- RRCs span from the Northeast Wind Resource Center touching northern-most Maine to the Islanded Grid Regional Resource Center serving Alaska and Hawaii. Each RRC works with local stakeholders such as county commissioners, state legislators, landowners, tribal authorities, and organizations like utilities, schools, and non-profit agencies.
- As part of DOE’s WINDExchange initiative, the RRCs produce relevant, actionable, and fact-based information about the benefits and impacts of wind energy and deliver that information to local stakeholders such as individuals, groups, communities, and policymakers in their regions.
- The RRCs provide information on regional topics such as supply chain, workforce, wind resource, geography, wildlife, electricity infrastructure, and costs.

Example RRC Completed Activities

Local, State, and Federal Government Cooperation

Counties in Utah developed state-mandated resource management plans to define the local priorities for the development and use of federal lands. The first utility-scale wind project in Utah, which brought $85.5 million in investments to the state, was built partially on public lands. The Four Corners RRC provided accurate wind development information and guidance language for each county’s resource management plan to support responsible wind development on federal lands.

Economic Market Analysis

The Midwest Wind Resource Center’s partner consultant completed a study of historical utility-scale data for the small community of Bloomfield, Iowa. The results were so compelling that Bloomfield’s municipal leaders adopted an energy plan that considers three renewable energy scenarios with varying generation levels. Bloomfield continued with the research necessary to make their energy plan a reality, and the plan now serves as a model energy plan in the Midwest.

Empowering Energy Education

The Southeastern Wind Coalition organized and led multiple stakeholder tours of the Amazon Wind Farm U.S. East in eastern North Carolina. As part of the tour, the Southeastern Wind Coalition disseminated information on the natural resources, economic potential, and the siting process that adhered to Department of Defense requirements.

Visit the WINDEExchange website for more information about the RRCs and state activities:

windexchange.energy.gov