

COOPERATIVE EXTENSION SERVICE & WIND POWERING AMERICA COLLABORATE TO PROVIDE WIND ENERGY INFORMATION TO RURAL STAKEHOLDERS

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Cooperative Extension & Wind Energy Deployment

Cooperative Extension's presence blankets much of the United States and has been a trusted information source to rural Americans. Wind energy furthers Cooperative Extension goals of promoting community well-being and development. By working together, Cooperative Extension, Wind Powering America, and the wind industry can better educate the public and rural stakeholders about wind energy and maximize the benefits of wind energy to local communities.

What Is Cooperative Extension (CE)?

- Non-formal educational program designed to help people use unbiased, research-based knowledge to improve their lives (Wikipedia)
- Established by the Smith-Lever Act of 1914 to provide the resources of a state's Land Grant Universities to people at a local level
- Typical focus areas: agricultural science, family and consumer science, 4-H and youth development, community and economic development
- Funding comes from a mix of federal, state, and local sources
- CE has a presence in almost every county in the United States
- While work completed in each county is tailored to the needs of that area, collaboration on issues of broader interest are coordinated through state offices and university subject-matter specialists.

Cooperative Extension Activities & Wind Energy

Cooperative Extension has become increasingly involved with wind energy issues in recent years due to greatly increased interest (and inquiries) on this topic.

- Outreach & Education
 - A small wind Webinar on February 13 attracted more than 150 participants.
 - CSU Extension wrote and published "Wind Energy in Colorado."
 - In 2008, MSU Extension provided educational workshops to more than 900 landowners in Montana.
- Analysis Tools
 - Wind-irrigation analysis tool (MSU Extension)
<http://www.msuextension.org/energy/wind/windhome.asp>
- Community & Economic Development
 - Wind monitoring in Northeast Colorado: CSU Extension led an effort to gather wind data in Northeast Colorado.
- Individual Inquiries & Consultation
 - Pre-feasibility analysis of the performance and economics of a proposed medium-size wind turbine project in Indiana
 - Feasibility analysis of municipal wind ownership in Montana.

Wind Issues Addressed by Cooperative Extension

- Sizing
- Economics
- Interconnection
- Net Metering
- Commercial Development
 - Leasing, easements, & land issues
- Transmission & Interconnection
 - How it works
 - Queue process
- Qualified Facility Projects
- Grants/Funding Sources
- Home/Farm Applications



Cooperative Extension & Wind Powering America

WPA assists the Cooperative Extension to develop cadres of experts in windy states to provide up-to-date, objective information to rural stakeholders on wind energy applications and issues. Examples of collaborative activities include:

- Cooperative Extension Wind Workshop (November 2008): WPA hosted a wind energy workshop attended by extension representatives from several states. Proposed future work includes:
 - Train CE staff on wind energy and wind energy applications
 - Collaborate on the writing of wind energy outreach publications
 - Assist with the installation of small wind turbines at CE offices
 - Assist 4-H with development of wind energy curriculum
 - Help connect CE and state Wind Application Centers (WACs)
 - Produce topical Webinars
- Small Wind Webinar (February 2009): WPA provided a speaker to a CE-organized Webinar devoted to home/farm wind applications.
- Technical Assistance: WPA assisted the Indiana CE in analyzing the performance and economics of a proposed medium-size wind turbine for a factory.

Wind Energy in Colorado

A Practical Guide for Farmers and Ranchers
About producing energy from wind



Photocourtesy of Department of Energy Natural Resources Energy Laboratory

Colorado State University
Department of Agricultural, Environmental & Soil Water Sciences

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- History and value of wind
- Case study: Colorado Green project
- Wind Farm Development Process
- Wind Farm Business Models.



Turbines at Colorado Green project . Photo credit: Craig Cox