



Advancing Wind Power in Illinois Conference 2011

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Wind for Schools

Thursday, July 21, 2011, 1:30 PM

Illinois Wind for Schools

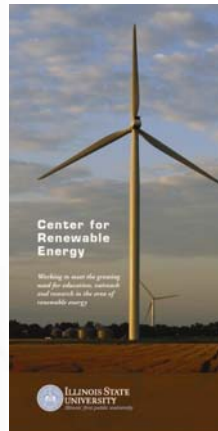
Advancing Wind Power in Illinois
Illinois Wind Working Group Annual Conference
Illinois Institute of Technology, Chicago

July 21, 2011

Matt Aldeman
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Jolene Willis
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- ...works to meet the growing need for education, outreach and research in the area of renewable energy.
- Three major functional areas:
 - to enhance the renewable energy major at Illinois State University;
 - to serve the Illinois renewable energy community by providing information to the public;
 - to encourage applied research concerning renewable energy at Illinois State University and through collaborations with other universities.



CENTER FOR RENEWABLE ENERGY

Illinois State University

- Website: www.renewableenergy.ilstu.edu/wind/
- Administers the Illinois Wind Working Group (part of Wind Powering America – a DOE initiative)



Western Illinois University

IIRA Home | Contacts | Comments



Illinois Institute for Rural Affairs

Making a Difference in Rural Illinois




[Home](#) [About Us](#) [Services](#) [Data](#) [Conference/Training](#) [Publications/Research](#)

...builds the capacity of community leaders and policymakers by providing technical support, applied research, policy evaluation, and training across the state. IIRA is a clearinghouse for information on rural issues, coordinates rural research, and works with state agencies on issues of importance to rural communities.

- Economic Development
- Community Development
- Health
- Housing
- Transportation
- Data Analysis
- Sustainable Development





Illinois Wind
A Project of the Illinois Institute for Rural Affairs

Home | About Us | Wind Monitoring Program | Resource Maps | Online Resources | Publications | Small Wind Turbines | Links

Illinois Wind is a website dedicated to information for Illinois residents interested in wind as a source of renewable energy.

News

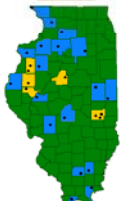
- [Building the Wind Turbine Supply Chain Workshop - Oct 23](#)
Friday, September 11, 2009
- [Quinn Administration Announces Guidelines for State Energy Grants](#)
Monday, August 24, 2009
- [USDA accepting applications for Renewable Energy systems](#)
Tuesday, May 24, 2009
- [Advancing Wind Power in Illinois Conference - July 15th & 16th, 2009](#)
Wednesday, May 13, 2009
- [IIRA WINDPOWER 2009 in Chicago](#)
Monday, April 13, 2009
- [Click here to read all news items](#)

Wind Site Selection Tool

This is an interactive GIS mapping tool for identifying optimal wind turbine locations in the state of Illinois. Information on infrastructure, wind resources and zoning can be viewed on a map in any combination with most of the layers appearing at a \$50,000 scale (about a 3 county area). Additional detail and attributes are available on certain map layers covering such items as contact information. Funded by the Illinois Clean Energy Community Foundation.

Wind Monitoring Program
Funded by the Illinois Clean Energy Community Foundation

[View Wind Maps](#)



View County Data

DeWitt Co.

Monitoring Status

Current Sites ■

Former Sites ■


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IllinoisWind.org


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Brief History: WfS

www.windpoweringamerica.gov



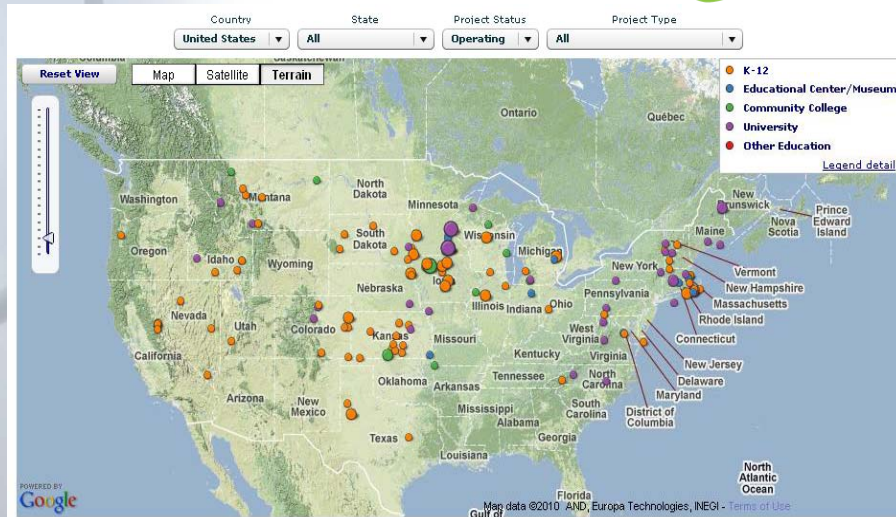
- Started as Wind Powering America (WPA) pilot project in 2005 in Colorado – resulted in one turbine
- Since then, added 10 more states
- Currently: **AK, AZ, CO, ID, KS, MT, NC, NE, PA, SD, VA (added 2010)**
- Plan is to continue adding states if federal funding allows



U.S. Department of Energy
Energy Efficiency and Renewable Energy
Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable

Brief History: WfS

www.windpoweringamerica.gov



AK, AZ, CO, ID, KS, MT, NC, NE, PA, SD, VA (added 2010)

WfS Goals

www.windpoweringamerica.gov



- Engage rural school teachers and students in wind energy
- Educate college students in wind energy applications, which will equip engineers for the growing U.S. wind industry
- Introduce wind energy to rural communities, initiating a discussion of wind energy's benefits and challenges



Wind Powering America

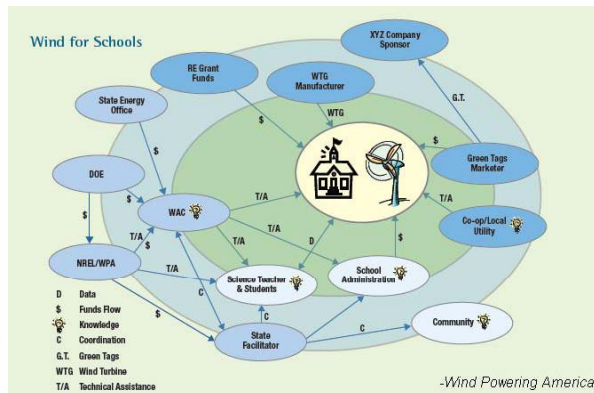
IL WfS Background



- WIU and ISU applied for funding Fall 2009
- Illinois DCEO agreed to supply matching funds (requirement for WPA application)
- Application was not accepted by WPA
- Illinois DCEO agreed to proceed with WfS program with or without federal support
- Plan to re-apply at next opportunity to WPA (federal money allows for increased scope)



WfS Stakeholders



-Wind Powering America



WfS Structure



- Wind Application Center (WAC) established at universities
- College students serve as consultants – assisting in assessment and installation



WESTERN
ILLINOIS
UNIVERSITY

ILLINOIS STATE
UNIVERSITY



Illinois Wind Application Center



WESTERN
ILLINOIS
UNIVERSITY

WAC Host
Institution



Core
Partner



State
Facilitator

Skystream Wind Turbine



<http://www.skystreamenergy.com/skystream-info/productphotos.php>



<http://www.msichicago.org/whats-here/exhibits/smart-home/>

- To be located at WIU, site to be determined
- Incorporated in education and outreach events
- Demonstration resource for WIU community and visiting K-12 faculty and students



WfS Approach



- Curriculum development
 - Science
 - Energy
 - Wind Energy
- Teacher training
- Hands-on curricula: classroom instruction, met tower data, small wind turbine



Illinois WfS Pilot Program



- 3 Schools; 2011-2012
 - Ridgeview CUSD #19 (Colfax, McLean Co)
 - Elmwood CUSD #229 (Elmwood, Peoria Co)
 - CUSD #3, Fulton Co (Cuba, Fulton Co)



Curriculum & Instruction

- Middle-Sr High Teacher Training
- Incorporates classroom curriculum and instruction, design and experimentation (lab) activities
- Customized to Illinois-specific energy info
- Developed by ISU College of Education and Center for Renewable Energy

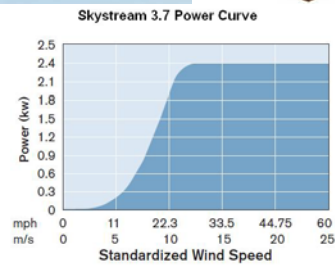
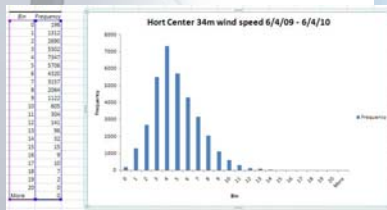
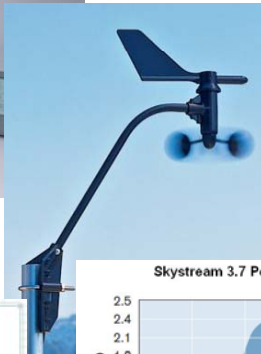


Curriculum & Instruction

- I. Energy & Electricity
- II. Wind & Weather
- III. Turbines & Engineering
- IV. Environmental
- V. Economics



Curriculum & Instruction



Timeline

Illinois Wind for Schools Timeline	
Quarter/Year	Tasks
2 nd Q - 2011	Select Pilot Program Schools Conduct Teacher Training
3 rd Q - 2011	Develop Curriculum Acquire weather stations & materials Aug - Conduct Teacher Workshops Finalize official program application
4 th Q - 2011	Distribute program application for 2012-2013 yr.
1 st Q - 2012	Select 3-5 schools Coordinate public announcement with schools
2 nd Q - 2012	Conduct Teacher Training for selected schools Conduct Statewide DIY Teacher Workshop Install weather stations at selected schools
3 rd Q - 2012	Site visit to schools Continued monitoring and technical assistance

Program Sustainability

- Funded 2 yrs, IL DCEO
- Looking to engage private sector
 - In-kind Contributions
 - Time (speakers bureau)
 - Equipment & Resources
 - Donations
- Actively seeking additional sources



IL Wind for Schools Program Contacts

Contacts for More Information:

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