



Advancing Wind Power in Illinois Conference 2011

Dan Turner

Windustry

Do-It-Yourself Wind Farm Breakout Seminar

Thursday, July 21, 2011, 4:00 PM



DO-IT-YOURSELF WINDFARM



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Outline



- About Windustry
- What is Community Wind? And Why?
- Community Development Overview
- Steps for a Community Wind Project
 - Project Planning and Management
 - Wind Resource Assessment
 - Siting and Permitting
 - Leases/Easements
 - Financing
 - PPA
 - Interconnection
 - Construction
- Community Wind Resources



Windustry

- Non-profit organization based in Minneapolis, MN - work locally, regionally and nationally
- www.windustry.org
- Focus on community wind, landowner options, and rural economic development
- Provide landowner education, outreach and technical assistance
- Tailor our efforts for agricultural organizations, rural landowners & communities and local elected officials



Mission Statement: *"Windustry promotes progressive renewable energy solutions and empowers communities to develop wind energy as an environmentally sustainable, community-owned asset. Through member supported outreach, education and advocacy we work to remove the barriers to broad community ownership of wind energy."*



What is Community Wind?



Most easily understood in contrast to Wall Street wind. A Wall Street wind project is one which is initiated, financed, and owned by a remote large corporate entity, so that the local benefits from the project are limited to taxes and lease payments to some local landowners. Community wind projects are almost always initiated and often at least partially financed and owned by members of the local community. The term "community wind" describes the community's involvement in the wind project, not the size of the project.



Benefits of Community Wind

- **Economic Benefits**

- Revitalizes Rural Economies & Stimulates the local economy
- Stabilizes Energy Prices
- Creates Jobs
- Diversifies Energy Portfolio
- Promotes Peace

- **Environmental Benefits**

- Produces Clean Electricity
- Keeps Water Sources Clean
- Protects Natural Resources

- **Social Benefits**

- Enhances National Security
- Promotes Local Self-Reliance
- Promotes Local Ownership
- Galvanizes Support for & Neutralizes Opposition against responsible RE

"Community wind helps get people connected to their energy use. Local energy production helps to build a better society, a better culture, and a better planet."

--David Benson, Nobles County, MN
Commissioner & Farmer



Spectrum of Community Wind Community Ownership



- **Groups of Local landowners/investors**
- **Private Schools**
- **Public/Private Partnerships**



Public Ownership

- **Municipal Utilities**
- **Public Schools**
- **Municipalities**



Private Ownership

- **Individual Farmers**
- **Local Businesses**



You Say You Wan' Ta Develop A Wind Project?

Well, you know, you gotta
have a plan.



Apologies to John Lennon



THE CEWPI MODEL



Community
Environment
Wind
Purchaser
Interconnection



COMMUNITY

As in community support. Are there issues with

- Zoning
- Height restrictions
- Setbacks
- Sound
- Fees and permits
- Securing access to and rights to develop a site
- Organized and well-financed opposition



ENVIRONMENT

As in the physical environment. Are there issues with

- Habitat or migratory routes of endangered species
- Historical, archeological, or paleontological sites
- Communication towers
- Airports
- Radar
- Accessibility of the site



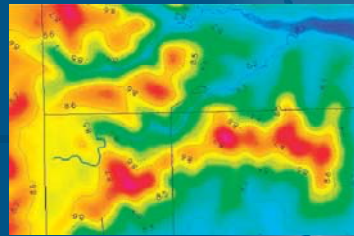
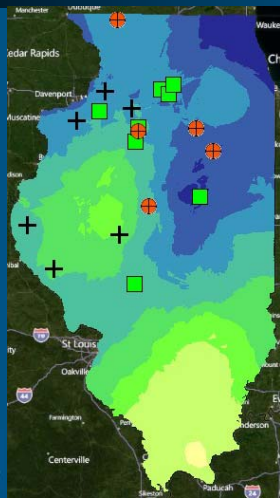
WIND

Duh....

However, proving it and characterizing it are no trivial matters.



WIND



1) Anemometer and Wind Direction Vane 2) Datalogger 3) Met Tower



PURCHASER

Also known as an offtaker. Often what is wanted is a *PPA*.

Will you get enough revenue for the energy you produce for the project to satisfy or attract investors and lenders?



INTERCONNECTION

Cost of interconnection to the purchaser is often fatal to an otherwise viable project.



CAN YOU DO IT YOURSELF?

If "YOU" are a community of committed, talented, energetic, patient people, and you have some luck with a good site, and a favorable policy environment, SURE!



Major Points to Keep in Mind

- Economic, social and environmental advantages accrue to local community
 - Community wind has up to 5 times the economic impact on local value added, and 3 times the impact on local job creation, relative to a remote corporate-owned development.
<http://cda.mrs.umn.edu/~kildegac/CV/Papers/TREE.pdf>
- Involve your neighbors and the public
 - Be prepared to explain how the project will help keep their power costs down
 - Answer their basic questions
 - Take into account their concerns and work with them to build a level of comfort and support



Major Points to Keep in Mind

- Projects take hard work, innovation, champions and public policy support
 - Planning and development typically takes several years
 - Dedicated team of professionals with consultants in business, finance, law, PPAs, engineering, construction & project management



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