

Wind Energy Applications: One Size Doesn't Fit All



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Sizes and Applications



Small (≤ 10 kW)

- Homes
- Farms
- Remote Application



Intermediate (10-250 kW)

- Village Power
- Hybrid Systems
- Distributed Power



Large (660 kW - 2+MW)

- Central Station Wind Farms
- Distributed Power
- Community Wind

Wheeler, Texas



- Turbine Size: 1 kW
- Turbine
Manufacturer: World Power Technologies
- Application: Water-pumping for 120 head of cattle

Scott City, Kansas

- Turbine Size: 10 kW
- Turbine Manufacturer: Bergey WindPower
- Application: Grid-connected, supplements power supply for farm



Orland, Maine

- Turbine Size: 50 kW
- Turbine Manufacturer: Atlantic Orient Corp.
- Developer/owner: G.M. Allen & Sons Blueberry Processing Plant
- Application: Net-metering for utility bill reduction



Saint Paul Island, Alaska



- Turbine Size: 225 kW
 - Turbine Manufacturer: Vestas
- Developer/owner: Northern Power Systems
- Capacity: .225 MW

Hull, Massachusetts

- Turbine Size: 660 kW
- Turbine Manufacturer: Vestas
- Developer/Owner: Hull Municipal Lighting Plant
- Capacity: .66 MW



Rosebud, SD



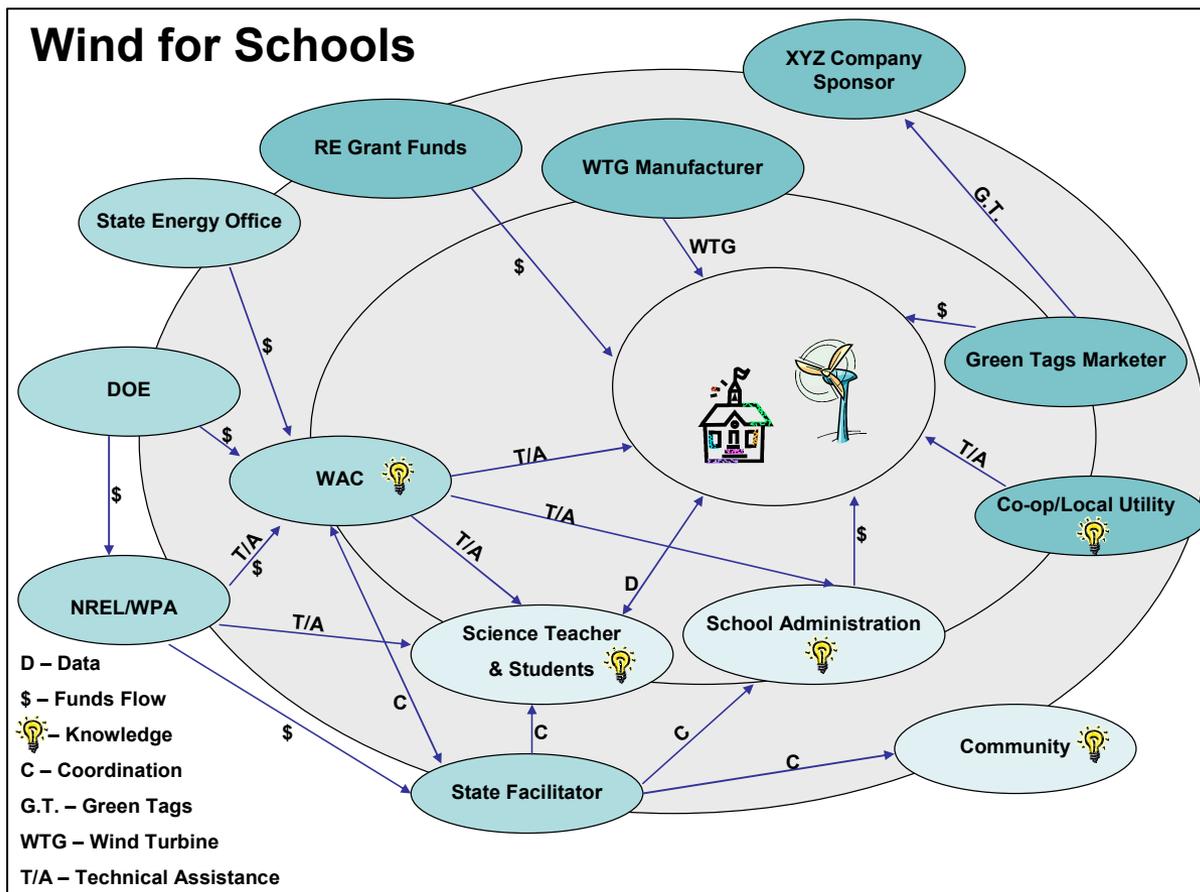
- Turbine Size: 750 KW
- Turbine Manufacturer: NEG Micon
- Turbine Owner: Rosebud Sioux Indian Reservation (Commissioned March 2003)
- PPA: Basin Electric
- Green Tags: Native Energy, US Air Force

Wind for Schools



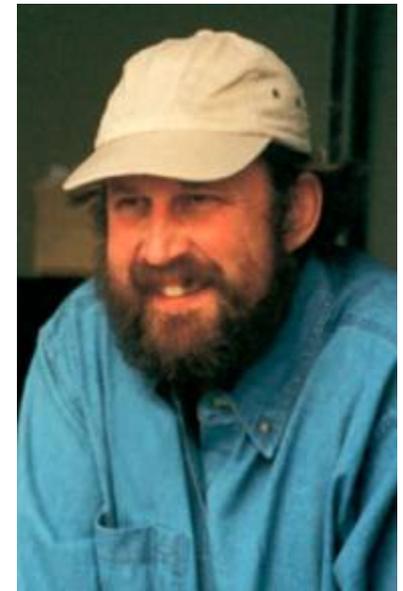
Photo courtesy of AWEA

- Spirit Lake, IA
- Turbine: 750kW NEG Micon
- Owner: Spirit Lake Community Schools





- 2 x 750kW
Micon WTG



“Our customers wanted this wind program and it was our job to deliver it. It has turned out to be a huge source of community pride. The turbines are a visible landmark showing the Moorhead Community’s commitment to a better world for our children.”

Christopher Reed, Moorhead Public Service, Moorhead, Minnesota

Kas Brothers Farm, MN



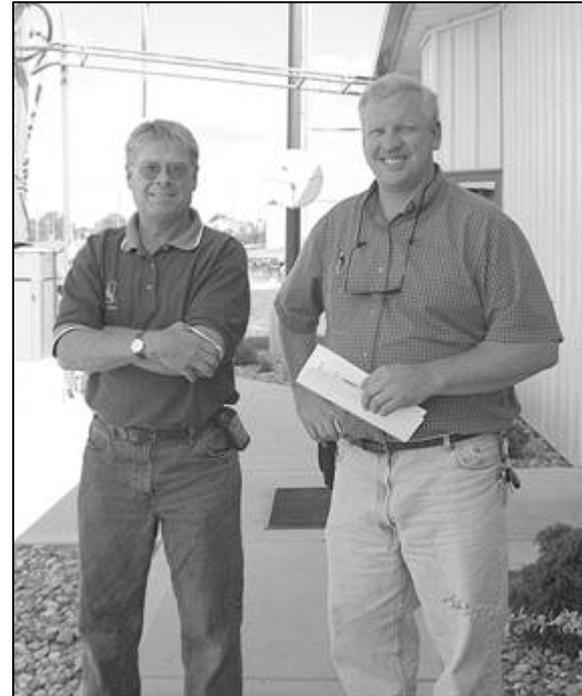
- 2x750 kW
- NEG Micon
- Farmer owned
- MN Flip model



MinWin I and II, MN



- 2x2x900 kW
- NEG Micon
- Farmer Cooperative – MN



Municipal Wind Power Pioneers



Waverly Light and Power

“The development of wind energy by Waverly Light and Power has been an important, environmentally correct step for our community, and continues to provide leadership for expansion of wind energy generation in the Midwest. We strongly believe that public power can play a significant role in the global reduction of greenhouse gasses by expanding and promoting wind energy and using programs like Iowa Energy Tags.”

- *Glenn Cannon, general manager,
Waverly Light and Power*



Chamberlain, South Dakota

- Turbine Size: 1300 kW
- Turbine Manufacturer: Nordex
- Developer: Crown Butte Wind Power
- Capacity: 2.6 MW



Kimball, Nebraska



- Turbine Size: 1.5 MW
- Turbine Manufacturer: NEG Micon
- Developer/Owner: Municipal Energy Association of Nebraska (MEAN)/TVIG
- Capacity: 10.5 MW

Lamar, CO



- Turbine Size:
1.5MW
- Manufacturer:
GE Wind
- Developer/Owner:
GE Wind/Shell,
PPM
- Capacity: 162 MW
- Commissioned:
2003



Texas goes to GW's



“Wind energy adds diversity to our generation fleet and provides a hedge against fossil fuel price increases. In addition, the development of renewable energy resources is widely supported by the public and our customers.”

Rick Walker, director, Renewable Energy Business Development, AEP Energy Services, Inc., Dallas, TX



Carpe Ventem

www.windpoweringamerica.gov