Community Wind Benefits

Community wind projects are community owned.

While most wind power projects are owned by companies with limited local ties, community wind projects are owned by the local community. Community wind projects are defined by an ownership model instead of by the type or size of turbine. Community wind projects have multiple applications and can be used by schools, hospitals, businesses, farms, ranches, or community facilities to supply local electricity. Rural electric cooperatives or municipal utilities can own community wind projects and use them to diversify electricity supplies. Community wind projects can also consist of groups of local individuals who form independent power producer groups or limited liability corporations to sell the power the turbines produce to a local electricity supplier (Rynne et al. 2011).

Community wind projects provide greater economic benefits than absentee-owned wind projects.

Locally owned community wind projects create even more of an economic opportunity for those involved than conventional wind farms owned by companies with limited local ties. Compared to conventional wind power projects, community wind projects have a greater impact in terms of economic benefits because of two key factors: the project being locally owned and overall project profitability. Research indicates that "construction-period employment impacts are 1.1 to 1.3 times higher and operations-period impacts are 1.1 to 2.8 times higher for community wind versus conventional wind power projects" (Lantz and Tegen 2009). The level of increased economic benefits is determined by the availability and use of local, qualified labor and supplies, as well as the ownership structure and financing details (Rynne et al. 2011).

Community wind projects offer increased local control.

Because community wind projects are locally owned, residents can influence the siting and sizing of projects and ensure that local interests are honored (Rynne et al. 2011). The local community can develop guidelines for establishing local ordinances, ensuring that future projects will follow regulations established for setbacks, sound levels, and aesthetics of future wind projects. For more information about wind energy ordinances, including state examples, visit http://www.windpoweringamerica.gov/policy/ordinances.asp.

Administrators at Kiowa County Memorial Hospital in Greensburg, Kansas, were so happy with the performance of this 50-kilowatt wind turbine, they installed a second wind turbine on the site. *Photo by Joah Bussert, NREL/PIX 17562*

Community wind projects can help stabilize energy prices for local communities.

With the combination of no fuel costs and relatively low operating costs, owners of community wind projects can confidently predict the price that they will pay for energy throughout the lifetime of the project (Rynne et al. 2011). Community wind projects produce energy that can be used directly or sold to local utilities at a fixed rate through a power purchase agreement, providing long-term energy price stabilization. In areas where importing fuel results in high electricity costs, developing community wind projects can stabilize or lower energy costs.

Community wind projects garner high levels of support from local communities.

Plans for siting new energy projects in a community—whether oil and gas wells, nuclear power plants, solar farms, or wind farms—are often met with opposition. Community wind projects garner high levels of support from people living in nearby communities (Lantz and Tegen 2009).

Besides the fact that community members enjoy economic benefits from community wind projects, increased local acceptance and public support may also result from involving local residents as investors or shareholders in community wind projects (Jones and Eiser 2009; Zoellner et al. 2008; McLaren Loring 2007; Devine-Wright 2005). The variety of different applications for which community wind projects can be used may also be a factor in garnering a higher level of general support from local residents.

Community wind projects are often connected to the electrical distribution line and do not require a separate overhead transmission line.

Community wind projects generally operate on a smaller scale than utility-scale wind farms, so they may not require transmission upgrades. Most community wind projects can be easily connected to the distribution grid (Rynne et al. 2011).

Community wind projects are clean energy projects.

Electricity production from wind turbines does not pollute the water we drink or the air we breathe, so wind energy means less smog, less acid rain, and fewer greenhouse gas emissions. Because it is a clean energy source, wind energy reduces health care and environmental costs associated with air pollution. Also, wind energy requires no mining, drilling, or transportation of fuel and it poses no risk of large-scale environmental contamination (Rynne et al. 2011).

Two 100-kilowatt Northern Power Systems wind turbines provide on-site energy generation for the Upper Scioto Valley School in McGuffey, Ohio. *Photo courtesy of NexGen Energy Partners, LLC, NREL/PIX 16741*

Community wind projects use minimal amounts of water.

A majority of community wind projects are located in rural areas where water conservation is a serious concern. Community wind energy can become part of the solution when examining energy production and potential water savings. Wind energy requires minimal amounts of water, whereas thermal generators are among the largest consumers of water in the United States (Rynne et al. 2011). By diversifying the local energy supply, communities can help manage the water supply risks on a local level.

Despite wind energy's numerous benefits, wind development is not appropriate everywhere. Individuals and communities should make informed decisions on local wind development. For more information, visit *www.windpoweringamerica.gov*

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For More Information

American Wind Energy Association: *www.awea.org*

Windustry: *www.windustry.org*

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