

Community Wind Myths

Myth: Community wind projects are not economically feasible without the Production Tax Credit (PTC) or the Investment Tax Credit (ITC).

Fact: Although the PTC and the ITC have been important tools for expanding the wind energy industry, community wind projects can utilize a number of economic models and financing opportunities that allow projects to be economically feasible without these two federal incentives. In fact, many community wind projects have not qualified for the PTC. The ITC for wind projects is a relatively new mechanism that was established as part of the American Recovery and Reinvestment Act of 2009 (Bolinger 2010), and so its value as a tool is only now being realized. Although these two mechanisms have aided community wind projects with initial financing, community wind developers can utilize other financing models, such as vendor financing, construction loans, permanent loans, investors, tax equity, new market tax credits, bonding, utility pre-payment, renewable energy credits, or various other state or local incentives (Meyer 2010). Some community wind projects can also qualify for the U.S. Department of Agriculture's Rural Energy for America Program, which can help raise private funds for the planning and construction phases of community wind projects (Moore et al. 2009).

Myth: Wind projects negatively impact the land values of people living in proximity to them.

Fact: Individuals living in close proximity to community wind projects (or even other non-community wind projects) may be concerned about property values. Anecdotal and some documented evidence (Lansink 2012) indicate that in some cases, reductions in property values have occurred. In addition, some studies have observed short-term reductions in home prices corresponding to the period following a project's public announcement but prior to the plant beginning operations. However, these declines were not observed after operations began, suggesting that they may have resulted from buyer apprehension during project development and construction (Heintzelman and Tuttle 2012; Hoen et al. 2011; Hinman 2010). The most comprehensive study of those listed examined nearly 7,500 U.S. residential transactions for homes located within 5 miles of wind turbine installations, 1,900 of which were within 1 mile and 125 of which occurred after the wind facilities were operational (Hoen et al. 2011). This study concluded that there was no statistical evidence of an impact on home prices from either views of or proximity to wind facilities.

Research published to date demonstrates that wind facility impacts are either too small or too infrequent to result in broad-based impacts to property values. In addition, studies cited here are principally based on commercial wind farm development; community-based wind projects may not experience the same levels of public apprehension due to a larger share of project-related benefits flowing back into the community. Nevertheless, maintenance of proper siting and setback practices as well as responsible development will likely help to mitigate any potential risk of property value impacts (Rynne et al. 2011).



After a tornado destroyed the town of Greensburg, Kansas, in 2007, community members incorporated renewable energy into their plans to rebuild. A 12.5-megawatt wind farm now supplies power to Greensburg. *Photo from Native Energy, Inc. NREL 17589*

Myth: Community wind projects do not create economic benefits.

Fact: Wind projects support jobs in construction, operation and maintenance of the facilities, and various other direct and indirect positions. They also provide economic benefits in the form of land-lease payments, local tax revenue, and "good neighbor" payments (Rynne et al. 2011). Compared to conventional wind power projects, community wind projects have greater economic impacts because of two key factors: the project being locally owned and overall project profitability (Lantz and Tegen 2009).

Myth: Community wind projects have a negative impact on local wildlife.

Fact: Communities may be concerned about the impact of wind projects on local wildlife, such as avian collisions, displacement, and habitat fragmentation. Through technological advancement, more thorough siting practices, and improved project planning, any negative impact to wildlife has been dramatically reduced (see Rynne et al. 2011). In recent years, concerns have been voiced regarding bat fatalities. Preliminary research on bat fatalities has been focused on altering wind plant operations at specific times of the day or year and during periods of low wind speed. This preliminary research has shown promise, reducing bat fatalities by as much as 80% (Arnett et al. 2009; Baerwald et al. 2009).

Myth: Community wind projects use an excess of local lands.

Fact: Community wind projects are generally of a much smaller scale than utility-scale installations. In addition, land requirements for turbines are rather modest. Between 2% and 5% of the total acreage of a wind facility is typically taken out of service, and the remaining land area can be used for its original purpose(s), including farming, ranching, and conservation (Rynne et al. 2011). Community projects may be sited in close proximity to dwellings or community buildings (like schools), so it is important for the project developer to conduct sound and shadow

flicker studies and work closely with the people who will be most impacted by the project so that their concerns and any potential impacts are understood.

Myth: Community wind projects ruin the quality of life for people living near them.

Fact: While community wind projects offer many positive impacts, including providing economic benefits (Lantz and Tegen 2009) and a clean source of renewable energy for local use, some are concerned with the potential negative impacts of a project. Concerns include aesthetics, sound, and shadow flicker. These concerns can be alleviated through the use of proper siting practices that are usually established on a local level and by open communication with the local population during project planning. By establishing local rules to address noise levels and setback distances, communities can limit negative quality of life impacts on those living in close proximity to a community wind project (Rynne et al. 2011). For examples of wind ordinances, visit www.windpoweringamerica.gov/policy/ordinances.asp.

Myth: Community wind projects create noise that can potentially impact the health of those living near the turbines.

Fact: One of the greatest concerns regarding wind energy is the sound produced by the turbines. Some individuals living in close proximity to wind farms claim to have experienced acute health impacts from wind turbine sound, including nervousness, anxiety, nausea, chest tightness, and tachycardia (Pierpont 2010), although multiple studies have shown there is no epidemiological evidence of such health effects (Colby et al. 2009; CMOH 2010; NHMRC 2010). To alleviate noise concerns, propagation models can help regulators and wind project neighbors better understand the noise level they are likely to experience (Rynne et al. 2011). As noted earlier, local sound regulations and setbacks can place limitations on the level of sound created by wind energy projects.

Myth: Community wind projects increase electricity rates for locals.

Fact: Many believe that integrating wind energy results in additional costs to the consumer, but recent contracted power prices for wind have been comparable to wholesale power markets across the country (Rynne et al. 2011). Although the recent decrease in natural gas prices and the emergence of wholesale electricity markets have made it increasingly difficult for wind to compete, production efficiencies and continued technological improvements suggest that wind energy is likely to maintain its competitive position in the future (Wiser and Bolinger 2011). Also, because wind turbines have no fuel cost and relatively low operating costs, project owners can confidently predict the cost of energy for many years into the future (Rynne et al. 2011).

For more information on the topics addressed in this fact sheet, visit www.windpoweringamerica.gov.

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