

One of the respondents said that wind energy development would help "make rural communities and farms more self-sufficient economically."

Another said it would "allow money to stay at home in the local economy." Still another said it would "raise the spirit of the community so people stay."

Extra Income for Landowners

Although utility-scale wind projects appear to take up a great deal of land, the wind turbines themselves occupy only about 5% to 15% of the land area. The remaining land can be used for other purposes, such as farming, ranching, forestry, or for open space. Farmers can graze cattle or plant their crops right up to the base of the turbine towers, making wind power an ideal complement to agriculture.

"Not only do wind farms interfere little with agricultural operations, the leasing of land for wind turbines can be a major benefit for landowners."

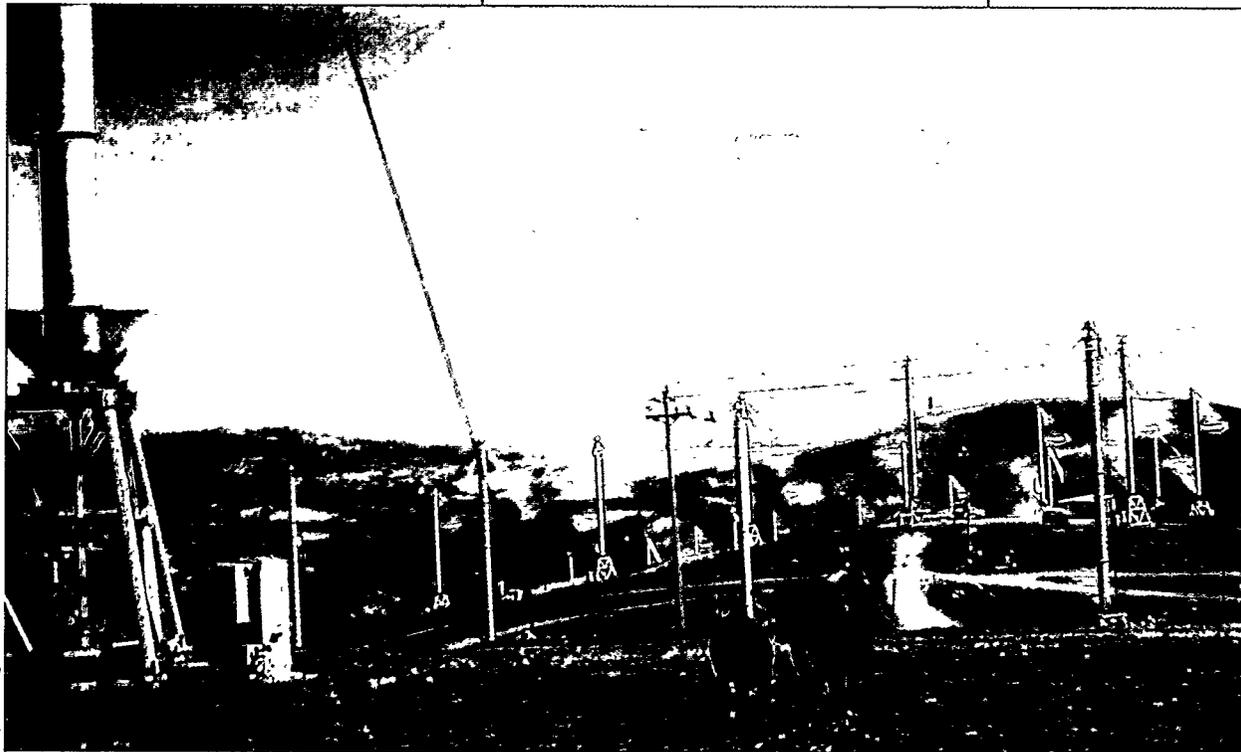
— *Powering the Midwest*, a 1993 report by the Union of Concerned Scientists

Although one-time payments for wind rights have been made, wind development companies typically offer lease arrangements under which the dollar amount of payments to landowners varies in proportion to the output of the turbines. In 1993, the Union of Concerned Scientists found that a Midwestern landowner hosting a wind farm under a variable-rate plan "could expect payments of around \$40 per acre per year *on top* of earnings from farming or grazing," increasing

How It Works

The wind blows because of differences in atmospheric pressure created by geography and the temperature differences across the Earth's surface; these temperature variations are caused by variations in the amount of sunshine falling on different areas — for this reason, wind is considered an indirect form of solar energy.

Energy is captured from the wind with wind turbines. The turbines have rotors that usually consist of two or three propeller-like blades mounted on a shaft. Wind turbines are mounted on tall towers, usually 100 feet or more above the ground where the wind is faster and less turbulent. When wind makes the blades turn, the shaft spins a generator to produce electricity.



Utility-scale wind plants coexist very well with ranching and farming. Farmers can graze cattle right up to the base of the turbine towers, as on this wind farm operated by Zond Systems at Altamont Pass, California.