



## **Agriculture and Wind**

For centuries wind power has been utilized to turn mills that grind grain into flour and pump water from wells. As electricity from burning fossil fuels became cheaper and more widespread, harnessing wind's power became less common. The increasing cost of electricity and knowledge of power plant pollution's detrimental effects has meant a resurgence of wind power on today's farms. As windmills evolved to the modern wind turbine, the size of the base has greatly diminished, affording farmers the opportunity to raise crops or livestock while simultaneously utilizing their fields to harvest wind energy.

### **Wind Provides Steady Supplemental Income**



The increasing prevalence of huge agribusiness and cheap imported food has caused significant difficulties for small American farmers.<sup>1</sup> To help bridge the gap of tight profit margins, some farmers have turned to wind power. According to the U.S. Department of Energy, farmers who lease land for utility scale projects receive on average about \$2,000 per year, per wind turbine, for the use of the land.<sup>2</sup> Farmers can also choose to accept 2%-3% of the gross income from the facility as payment<sup>3</sup> anticipating wind will continue to be increasingly competitive with other electricity sources.

### **Preserving Farmland Benefits the Environment**

As profits have declined, some farmers have been enticed to take advantage of raising real estate prices by selling parcels of land to suburban or commercial developers.<sup>4</sup> But leasing a small portion of one's farm has provided another alternative with far fewer negative affects.

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<sup>1</sup> Sanaz Memarsadeghi and Raj Patel, Ph.D.,

*Agricultural Restructuring in the United States: Who wins, who loses?*

Policy Brief No. 6 (Oakland, CA: Institute for Food and Development Policy/ Food First, 2003).

Online at <http://www.foodfirst.org/pubs/policy/pb6.pdf>

<sup>2</sup> United States Department of Energy, *Electricity from the Wind: The New Cash Crop*,

[http://www.eere.energy.gov/windandhydro/windpoweringamerica/docs/the\\_new\\_cash\\_crop.doc](http://www.eere.energy.gov/windandhydro/windpoweringamerica/docs/the_new_cash_crop.doc)

<sup>3</sup> United States Department of Energy

*Electricity From the Wind: What Landowners Should Know*,

[http://www.eere.energy.gov/windandhydro/windpoweringamerica/docs/what\\_landowners\\_should\\_know.doc](http://www.eere.energy.gov/windandhydro/windpoweringamerica/docs/what_landowners_should_know.doc)

<sup>4</sup> American Farmland Trust, *Farming On the Edge*,

<http://www.farmland.org/resources/fote>.

Family farming is a preferred land use compared to most residential subdivision developments. Sprawling urban and suburban development increases air pollution.<sup>5</sup> This development increases water pollution by creating more impervious surfaces and oil and other automotive toxins, facilitating increased polluted runoff into streams and degrading water supplies.<sup>6</sup> Residential development also, perhaps counter-intuitively, usually increases the levels of pesticides used per-acre compared to farms.<sup>7</sup> A wind turbine typically takes up roughly a half-acre,<sup>8</sup> while bringing in 10 times the average amount of income per half-acre of farmland in the U.S.<sup>9</sup>

### **Wind Works For Farmers!**

Leasing land to an energy company gives farmers a low-hassle way to continue active agriculture and be a part of a sustainable future. Harvesting wind allows farmers to grow crops and pasture right up to the base of the turbine.

Building a small-scale wind turbine can help a farmer offset electricity costs and sometimes provide all of the electricity for the farm. New York State has incentives available for small-scale wind, as well as “net-metering” laws that offset the owner’s utility bill when excess electricity being produced.

### **Are You A Farmer, Interested in Wind Power?**

Contact the New York State Energy Research and Development Agency (NYSERDA) to find out how you can best utilize the wind in your area by going to their website ([www.powernaturally.org](http://www.powernaturally.org)) or by calling (1-866-NYSERDA or (518)- 862-1090).



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<sup>5</sup> Howard Frumkin, MD, DrPh, “Urban Sprawl and Public Health,” *Public Health Reports* 117 (2002) 201-17.

<sup>6</sup> United States Environmental Protection Agency Office of Water, “Managing Stormwater Runoff to Prevent Contamination of Drinking Water,” *Source Water Protection Bulletin* EPA 816-F-01-020 (2001).

<sup>7</sup> Abrams, R., Attorney General of NY. “Toxic Fairways: Risking Groundwater Contamination From Pesticides on Long Island Golf Courses,” Environmental Protection Bureau. (1991).

<sup>8</sup> [http://www.nrel.gov/analysis/power\\_databook/calc\\_wind.php](http://www.nrel.gov/analysis/power_databook/calc_wind.php)

<sup>9</sup> United States Department of Energy, *Electricity From the Wind: The New Cash Crop*, [http://www.eere.energy.gov/windandhydro/windpoweringamerica/docs/the\\_new\\_cash\\_crop.doc](http://www.eere.energy.gov/windandhydro/windpoweringamerica/docs/the_new_cash_crop.doc) and <http://www.ers.usda.gov/statefacts>