For centuries wind power was used on farms to grind grain into flour and pump water from wells. As electricity and fossil fuels became cheaper and more widely available, harnessing the wind’s power for these purposes became less common. However, in recent years support for renewable energy has increased, along with awareness of the negative environmental impacts of fossil fuel combustion. Some farmers in windy areas now have the opportunity to raise crops or livestock while simultaneously using their lands to host wind turbines.

WIND CAN PROVIDE SUPPLEMENTAL FARM INCOME

The increasing prevalence of big agribusiness and cheap imported food has caused significant difficulties for small American farmers. (Memarsadeghi, 2003)¹ Harvesting their wind resources can help farmers survive when profit margins for other crops are tight. According to the U.S. Department of Energy, farmers who lease land for utility wind scale projects receive on average about $2,000 per year, per wind turbine, for the use of their land. (U.S. DOE, 2007).² Farmers can also choose to negotiate a percentage (e.g. 2%-3%) of the gross income from the turbines as payment. (U.S. DOE, 2005)³ A wind turbine typically takes up roughly a half-acre, (NREL)⁴ and farmers can grow crops and pasture right up to the base of the turbines. The Union of Concerned Scientists estimates that by leasing a small portion of their land for utility-scale wind turbines, typical farmers or ranchers with good wind resources could increase the economic yield of their land by 30%-100%. (U.S. DOE, 2007)⁵

PRESERVING FARMLAND BENEFITS THE ENVIRONMENT

As profits from farming have declined, and land values have risen, some farmers have sold parcels of land for residential or commercial development. (Frumkin, 2002)⁶ But leasing a small portion of one’s farm for wind energy development can provide an alternative with fewer negative effects.

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“[The New Cash Crop]”
“What Landowners Should Know”
⁴ http://www.nrel.gov/analysis/power_databook/calc_wind.php
Family farming is a more environmentally friendly land use than suburban residential development. Sprawling suburban development increases air pollution by increasing automobile traffic, the leading cause of air pollution. (U.S. DOE, 2007) It also increases water pollution by creating more impervious surfaces and increasing the use of oil and other automotive toxins, resulting in increased pollution runoff into streams. (EPA, 2001) Suburban residential development also, perhaps counter-intuitively, usually increases the levels of pesticides used per acre compared to farms. (U.S.C., 2006)

Recognizing the farmland protection benefit of harnessing power from the wind, in 2002 the federal government amended the Farm Bill to give farmers an option to place wind turbines and wind-monitoring devices on lands protected under the Conservation Reserve Program (CRP). Abrams, 1991) When wind turbines are sited on CRP lands, impacts to sensitive ecosystems such as wetlands are taken into consideration on a site-specific basis. (FSA, 2010)

Farmers should be fully engaged in any activity that impacts the farm, and constructing windmills is no exception. Road construction, soil compaction, and fragmenting pastures are all site-specific issues farmers should work with the wind developer on. NYERDA and the New York State Department of Agriculture and Markets have produced a guide to help farmers with these and other issues. The document is available online at: http://www.powernaturally.org/programs/wind/toolkit/7_visualimpactupfront.pdf

ARE YOU A FARMER INTERESTED IN WIND POWER?
There are several different models for developing wind energy on farms. Farmers can invest in a small wind turbine for their own electricity needs, join with neighboring landowners for a cooperative wind farm, or lease land for a larger-scale wind energy development. Contact the New York State Energy Research and Development Agency (NYERDA) to find out how you can best use your wind resource by visiting their website (www.powernaturally.org) or by calling 1-866-NYSERDA or (518) 862-1090.