

## **Wind Farms in the Finger Lakes? Peter Landre, CCE Yates County**

Below are two documents landowners considering wind energy easements should read:

**Harvesting the Wind: A Legal Guidebook for Landowners** (NYSERDA and Pace University)  
<http://www.powernaturally.org/Programs/Wind/toolkit/landownersguide.pdf>

**Wind Energy Development in New York State: Issues for Landowners** (Cornell University)  
<http://aem.cornell.edu/outreach/extensionpdf/eb0504.pdf>

In the near future, New York State may be known as much for its wind farms as it is for its grape farms. According to Jennifer Harvey of New York State Energy Research and Development Authority (NYSERDA), New York State has more wind power potential than California! At a recent Wind Energy Conference in Batavia, she added NYSEERDA is actively promoting commercial wind power projects as a way to increase energy supply diversity, protect against fluctuations in oil prices and to help keep energy jobs here in New York.

Many counties in the state are interested in promoting the “clean” energy because of the potential tax, job, and income benefits. Other counties and municipalities are not so keen on the prospect of wind farms because of aesthetic and environmental concerns. Locally, several towns are studying the issue and the Town of Jerusalem currently has a moratorium on their development while a committee formulates recommendations.

The latest wind turbines are high tech and very large. Each turbine produces up to 1.5 mega watts or enough energy for 600 homes with the energy sold directly to the electrical grid. The towers are 260 feet tall and the blades on the turbines extend another 120 feet above the towers, with a total height of 400’. A “wind farm” consists of 20 or more of the turbines grouped together in a several thousand acre contiguous land area.

How much wind is needed to power the wind turbines? A minimum of 15.75 mph annual average is recommended to make the turbines efficient. A wind potential map has been developed for the state and can be viewed at the website: <http://www.awstruewind.com/>. On this site you can zoom into any area of the state and look at the wind potential for wind power development. While NYS has good wind potential overall, there are perhaps only 110 sites which meet the minimum wind speeds. Of these 110 sites, 30 are not close enough to transmission lines to be economically feasible. Another 30 are not good for environmental reasons. There remains about 30-50 good sites total and there are 10-12 companies vying to develop these sites.

How much wind power is in NYS future? New York State has a goal of obtaining 25% renewable energy sources from within NYS by 2014. Currently only 7% is derived from renewable at this time (mostly hydroelectric). According to NYSEERDA, if 8% of the 25% renewable energy were to come from wind power, by 2014, there would need to be roughly 4,000, 1.5 megawatt wind turbines operating in NYS.

What are some of the advantages of wind energy? Wind energy is “free”, once the towers are erected and the turbines are running. There are no air emissions of pollutants like carbon monoxide or sulfur dioxide. There is more demand for “clean” alternative wind energy sources than there is currently supplied. There are many economic benefits for landowners and communities. Lease rents for each turbine are about \$3-5,000 per year with some production based royalties sometimes arranged. For each 1.5 megawatt turbine, there is about \$1 million in investment capital generated, 10 construction jobs and 1-2 permanent jobs created. In terms of land area, only ½ acre is needed for each turbine, including access roads.

What are some of the concerns or issues regarding wind power? Some communities are very supportive of wind power and see them as a “winter crop” and a potential economic boost to the local economy. Other communities who are concerned about wind power are generally opposed to the aesthetics of the large towers and potential environmental impacts. Some areas where there are “pristine” natural views may not be good sites for wind turbine farms. Potential environmental issues include impacts on birds and/or bats, setbacks from housing, erosion and sediment control during/after construction of roads and wind turbine site, noise, and air traffic. Prior to the development of a wind farm, a full environmental review of the potential site would need to be completed and filed with the local zoning authority (assuming the town has zoning).

While it remains to be seen where wind farms will be sited in NYS, there certainly is a great interest in their development by the state, wind energy companies and consumers. At the same time, many landowners and municipalities are concerned about aesthetic and environmental issues associated with large-scale wind farm development. For more information, go to the NYSERDA website at: [www.powernaturally.org](http://www.powernaturally.org).