



LIVINGSTON COUNTY
ENVIRONMENTAL ASSOCIATION

NEWS RELEASE

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Wind Turbine Health Study Results Released

Residents of the first wind farm in Livingston County reported more health symptoms than residents of an area with no wind turbines, according to a study by the Livingston County Environmental Association. The report “Environmental Health Survey Pilot Project, Summer 2011” was presented at the Ag & Zoning Committee of the Livingston County Board Tuesday night. The study was the result of interviews with residents inside the Streator-Cayuga Ridge South wind farm near Odell, Illinois. Additionally, a control group of residents in an area of the county far from turbines was asked the same questions.

LCEA president Judy Campbell noted that the federal government has been funding industrial wind energy for years but has never done an official study of the health impacts of industrial wind on people living near the turbines. “We decided that we should survey our own residents to see how they were doing,” she said.

Due to the small size of the population, the results cannot be considered statistically significant for wind energy in general, but are only indicative of this particular population. It is the hope of the LCEA that this survey can be administered in other wind projects so that enough data is gathered to permit experts to reach statistically significant conclusions regarding the health impacts of industrial wind energy projects in general.

The study found that 81.1% of wind farm residents reported experiencing at least one of 14 concerns suspected to be associated with wind farms, while 66.7% of residents from a rural non-wind farm area of the county also reported such problems. Those numbers were impacted by a question about headaches, which a majority of residents in both groups reported experiencing. When the results were broken down for individual symptoms, wind farm residents were more likely to report heart palpitations, fatigue, anxiety, sleep disturbances, migraines, depression, vertigo, nausea, menstrual changes

and other reproductive problems. In addition, people living nearer turbines reported more symptoms than those living farther away.

The survey also addressed residents' opinions on other issues related to wind energy. Within the wind farm, the following concerns were experienced by at least 25% of the respondents: nuisance noise (47%); negative impact on farmland (37%); impact from flickering shadows (32%), and interference with communications (29%). During the construction phase, at least 25% percent of respondents reported the following concerns: substantial damage to roads (63%); damage to personal property (32%); and lack of proper notice of construction (32%).

Almost two-thirds of the wind farm group had signed a contract with the wind company. Participants receiving payments reported fewer concerns than non-participants.

The study revealed a big disconnect between residents' expectations and the actual cost of wind energy. Sixty percent of all respondents said they were not willing to pay any additional fees for the use of wind energy. Only 1% of respondents were willing to pay more than 5% extra for wind energy. However, most studies find that wind energy will cost substantially more. Kent Hawkins of Master Resource recently reported that the levelized (full life cycle) cost of wind and associated backup gas plants would cost approximately five times as much as coal or natural gas, and three times as much as nuclear energy. To calculate levelized costs, analysts include the cost of construction, fuel and maintenance necessary to provide a unit of energy over a 40-year horizon. The federal government's Energy Information Administration (EIA) reported that wind would cost 50% more than natural gas generation. However, those figures did not include the substantial federal subsidies for wind, which account for about 30% of the total cost of wind energy. Consumers would experience such costs as increases in the cost of goods and services as well as directly in residential utility bills.

Under the leadership of Governor Blagojevich the State of Illinois adopted an energy policy of "25 by 25." Under the law, major utilities must provide at least 25% of their electricity from renewables (mostly wind) by 2025, either by direct purchase or purchase of renewable energy credits. According to recent EIA statistics, wind energy now accounts for 3% of the nation's electric supply.

When asked what they thought of the visual impact of the turbines, 45% of respondents were neutral or did not respond, 30% liked the impact and 26% disliked the impact. Inside the wind farm, 29% disliked the impact.

One of the first questions in the interview asked respondents to identify the biggest environmental problem facing Livingston County. Twenty-four percent were concerned about the landfill. Other top concerns were poor water quality (20%); agricultural chemical contamination (20%), wind farms (12%) and littering and general pollution (4%).

Fifty-seven percent of all the respondents reported feeling somewhat or highly uninformed about the zoning process for wind farms in the county, suggesting the need for more public education efforts.

An intern from Illinois Wesleyan University with training and experience in marketing and statistics designed the survey and conducted the interviews. The study was funded by the Livingston County Environmental Association. LCEA is a non-profit, 100% volunteer charitable organization that formed in 2003 in the aftermath of the expansion of Livingston Landfill. Its mission is to protect the health, welfare and natural resources of Livingston County. LCEA has sponsored a cancer study, radon survey, Earth Day celebrations, the annual Vermilion River cleanup and other projects. For more information on environmental concerns in Livingston County, go to www.livingstoncountyenvironmental.org.

