

Review by Hugh Kemper:

The Effect of Wind Development on Local Property Values

Written/published in May 2003 by Renewable Energy Policy Project (REPP) and available at www.repp.org. This \$25,000 study was funded by the U.S. Dept. of Energy.

About REPP:

Per the report, REPP supports the advancement of renewable energy technology through policy research. It receives 'generous' support from the U.S. Dept. of Energy, the Energy Foundation, the Environmental Protection Agency and the National Renewable Energy Laboratory among others.

Why this Study is Important/REPP's Conclusion:

This is the study virtually all wind power proponents cite as 'proof' that wind turbines do not adversely affect property values. REPP's conclusion-

"In all we analyzed ten projects in three cases; we looked at thirty individual analyses and found that in twenty-six of those, property values in the affected view shed performed better than the alternative...The statistical analysis of all property sales in the view shed and the comparable community...provides no evidence that wind development has harmed property values within the view shed."

Methodology:

REPP applied 'regression analysis' from three perspectives to property sales, where possible, that occurred three years before and three years after the on-line date of a wind turbine project. The analysis was of price changes (1) in the view shed and comparable communities for the entire period of study, (2) in the view shed before and after the project came on line, and (3) in the view shed and comparable communities but only for the time period after the projects came on line.

The view shed is defined as all properties within a five-mile radius of the outermost wind turbines in a wind farm.

Comments on Methodology:

It is noteworthy that the study lacked resources to determine (through site visits, interviews, etc) whether or not individual properties had a view of the wind turbines. Estimates of the percentage of properties within a view shed that had a view of the turbines were gained for the most part through telephone interviews with local county executives and/or listers/assessors.

It is noteworthy that this study does not answer the basic question of how wind turbines affect property values. George Sterzinger, executive director of REPP, admitted as much in response to critics who stressed that the study contains no proof that wind farms were the reason for the changes in property values: "We have no idea"...noting REPP did not have enough time or money to answer that question. (*Cape Cod Times* 6/20/03). Simply put, the study is an 'empirical review of the changes in property values over time', not an explanation of what external influences may have been responsible for the changes. The analysis was conducted 'solely to determine whether existing data could be interpreted as supporting the claim that wind development harms property values.' The authors admit that 'it would be desirable in future studies to expand the variables incorporated into the analysis and to refine the view shed in order to look at the relationship between property values and the precise distance from the development.'

The *Cape Cod Times* (6/20/03) further noted that 'Sterzinger agreed that the study's findings have to be applied carefully to different situations.....There are thousands of real estate micro-climates in the U.S....(that) are different communities than a lot of the ones we looked at.'

Projects Studied:

Project candidates were large projects (i.e. =>10MW) that went on-line during 1998 thru 2001. Of the 27 identified candidates, sufficient data was available for projects in 9 locations. Two of the projects not included were in states whose laws prohibit disclosure (Wyoming and Kansas). The remaining 'rejects' were due primarily to the unavailability of a sufficient amount of data to pursue a statistical analysis and/or the paucity of actual sales.

The projects/locations studied included:

- 8 projects in Riverside County, CA
- 2 projects (Madison and Fenner) in Madison County, NY
- 1 project (Carson) in Carson County, TX
- 1 project (Searsburg) in Bennington County, VT
- 2 projects (Lincoln and Rosiere) in Kewaunee County, WI
- 2 projects (Somerset and Green Mountain) in Somerset County, PA
- 2 projects (Storm Lake I and Storm Lake II) in Buena Vista County, IA
- 6 projects in Kern County, CA
- 1 project in Fayette County, PA

Results:

For Case I (price changes in the view shed and comparable communities for the entire period of the study), property values increased faster in the view shed in 8 of 10 cases. The exceptions were Kern (existence of old turbines does not provide a look at how new turbines will affect property values), and Fayette (statistical evidence could explain only 2% of total change in prices)

For Case II (price changes in the view shed before and after the project came on line), property values in 9 of 10 cases increased faster after the project came on line than they did before. The exception was Kewaunee (poor statistical fit).

For Case III (price changes in the view shed and comparable communities but only for the time period after the projects came on line), property values in 9 of 10 cases increased faster in the view shed than in the comparable communities. The exception was Kern (existence of old turbines does not provide a look at how new turbines will affect property values.)

The one comment in the study that suggested turbines had affected adversely property values is attributed to Assessor Dave Dorschner (Kewaunee)-'in the cases of neighboring property, some homes were sold because of visual and/or auditory distraction, but some of the properties were purchased speculatively in hope that a tower might be built on the property.'

-the California projects in Riverside and Kern Counties were 'additions' to areas very familiar with turbines since 1981. The eight Riverside projects that came on-line during the 1998-2001 period added 183.8MW to an already existing base of 301.8MW. In Kern's case, six projects added 134.6MW to an existing installed base of 466.1MW. For the reason mentioned by the authors (existence of old turbines does not provide a look at how new turbines will affect property values) these locations should not have been included in the study.

-the Carson County, TX, and Buena Vista County, (IA) are where wind turbines are supposed to be. Carson (80 turbines/80MW and visible to 90%-100% of residents) is located in the middle of the 'flat' Texas Panhandle among large agricultural farms and small herds of cows. Buena Vista's two projects are large-Storm Lake I (150 turbines/112.5MW) and Storm Lake II (107 turbines/80.2MW)- and located on flat largely agricultural land with minimum elevation changes.

-with the exception of Madison County's Fenner project (20 turbines/30MW) which is located on agricultural land all the remaining projects are fairly small- Madison County's Madison project (7 turbines/11.6MW), Bennington County's Searsburg (11 turbines/6MW), Kewaunee County's Lincoln (9.2MW) and Rosiere (11.2MW), Somerset County's Somerset (6 turbines/9.0MW) and Green Mountain (8 turbines/10.4MW) and Fayette County (10 turbines/15.0MW)....and not particularly visible: Searsburg (<10%), Kewaunee (<25%), Somerset (<20%) and Fayette (<20%).

Hugh Kemper, author of the above review, is a member on the board of directors of National Wind Watch, Inc. and a resident of South Londonderry, Vermont.