

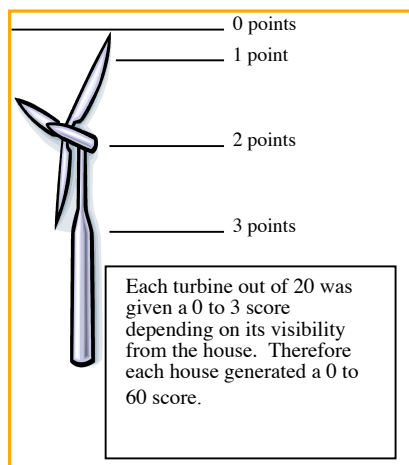
Impacts of Windmill Visibility on Property Values in Madison County, New York
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Background

With a growing reliance on wind energy to mitigate risks from energy security, air pollution and global warming, a continuance of federal renewable energy tax credits, and a number of state incentive packages, U.S. states are seeing wind energy development grow at an unprecedented rate. Additionally windmill and wind farm sizes are growing larger in order to capture greater efficiencies. Conflicts have occurred between community members and facility developers over expected aesthetic impacts and their corresponding property value impacts. Changes in property values can potentially represent “hidden costs” borne by the community. Tom Grey, of the American Wind Energy Association (AWEA) ranks aesthetics and property values as the “number one” concern of communities considering wind farms. Without proper analysis of this subject and a thorough understanding of effects on communities surrounding existing facilities, upcoming projects will be either needlessly delayed or inappropriately approved. Many opinions exist on the effects of wind development on surrounding property values, but no study to date has empirically analyzed the subject and actually visited the homes in the community to establish the degree of turbine visibility.

Purpose & Methods

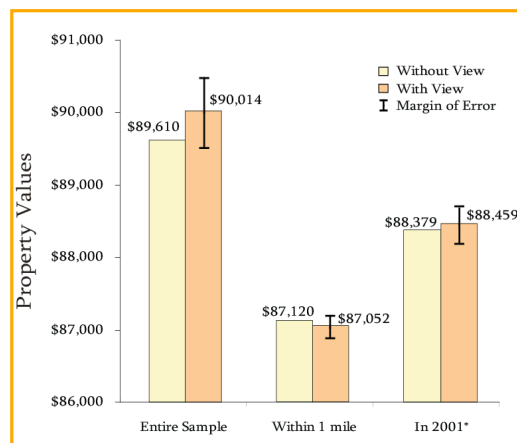
This report analyzed property values surrounding a 20-turbine windfarm, constructed in 2001, in Madison County, New York to establish if any effects actually exist, and to set standards for future research. 280 arms-length residential home sales within 5 miles of the windfarm and occurring between 1996 and 2005 were analyzed. A visit to each home was made and an unbiased scoring method was used (see left) to quantify the degree to which each of these homes could see the wind farm, and the distance from each home to the turbines. These and other characteristics obtained from the county assessor records were incorporated into an econometric model to ascertain if the properties’ sale prices were uniquely affected by the windmill visibility.



The report finds no measurable effects of windmill visibility on property values (p-value 0.410). This absence of evidence holds even when concentrating on homes within a mile (p-value 0.656) or on those that sold immediately following announcement in 2001 (p-value 0.742) (See right).

Results

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Conclusions & Recommendations

The report suggests a number of reasons why no effects were found: The windmill array fits the landscape; wind farming fits this community’s “sense of place;” the payments the community received “balanced” any adverse impacts; a well respected landowner/proponent swayed others; and possibly residents swapped local impacts for global benefits. Further, the report offers the possibility that effects are more myth than reality citing empirical survey studies conducted in Europe which report resident reaction to wind farms largely to be neither good nor bad, but rather “acceptable”¹, and another study which finds the local wind facility is rarely (< 3.0%) spontaneously mentioned in residents’ descriptions of their surroundings.² The author recommends further study of 6 to 10 other sites in the U.S. to ascertain if his results can apply to many of the communities considering wind facilities currently across the county.

¹ Warren, C., C. Lumsden, et al. (2005). "Green on Green: Public Perceptions of Wind Power in Scotland and Ireland." Journal of Environmental Planning and Management 48 (6): 853-875.

² Braunholtz, S. and MORI-Scotland (2003). "Public Attitudes to Windfarms: A Survey of Local Residents in Scotland." Scottish