

Land-based Wind Turbines do not Affect Property Values

Studies show no evidence that wind farms impact property values long-term in rural areas.

Key Takeaways

- 1 Research suggests that the planning, construction, and operation of utility-scale wind turbine installations have no long-term negative impact on property values.
- 2 Limited research suggests that the installation of wind turbines can lead to a regional increase in property values, particularly in rural communities.
- 3 Wind installations can economically benefit communities by generating tax and land lease revenue, creating jobs, and raising per-capita income.

Background

Utility-scale wind energy is the largest source of renewable electricity generation in the United States. The 73,000+ wind turbines deployed across the U.S., can generate upwards of 153 gigawatts of clean, reliable electricity – enough wind to power 46 million American homes.



Research Refutes Wind Turbine Economic Misconceptions

A 2023 study by Eric J. Brunner, Ben Hoen, Joe Rand, and David Schwegman found no evidence of long-term negative impacts to property values in rural communities. The only potential for an adverse effect from wind project installation was observed during the temporary construction phase in large “urban” counties, with populations greater than or equal to 250,000. This potential temporary effect only impacted properties within one mile of a wind installation and was limited to the project’s construction phase. Evidence shows that property values begin to return to pre-announcement levels after operation begins.

- 88% of installed wind capacity is in counties with populations less than 100,000.
- 94% of installed wind capacity is in counties with populations less than 250,000.
- Additionally, a 2019 analysis on property values by researchers at the University of California, Davis found that wind turbines do not negatively impact property values at any point during their installation, including post-announcement, during construction, and post-construction.

A 2013 study by the Lawrence Berkeley National Laboratory (LBNL) found no significant impact on the property values of the 50,000 homes researchers analyzed that are located within 10 miles of 67 different wind facilities.

- According to the lead author, Ben Hoen, “This is the second of two major studies we have conducted on this topic [the first was published in 2009], and in both studies [using two different datasets] we find no statistical evidence that operating wind turbines have had any measurable impact on home sales prices.”

Wind Installations Economically Benefit Property Owners

Some American homeowners believe that wind turbine installations can reduce property values in an area; however, extensive research indicates this is not the case. A 2022 peer reviewed study found that beginning with the construction phase, wind energy projects led to economically meaningful increases in median home values, household income, and both county-level income and gross domestic product (GDP) per-capita. The study also suggests that wind energy investments may stimulate and diversify local rural economies at an increasing rate with installed capacity, implying rural communities with multiple installations and greater wind energy capacity benefit the most.

Wind Installations Create Regional Economic Benefits

The wind energy industry is a true driver of economic development, particularly in rural areas. Wind energy diversifies income sources on local landowners’ property and increases tax revenues, providing funds for schools, infrastructure and community services. Wind energy projects across the U.S. deliver an estimated \$2 billion in state and local tax payments and land-lease payments each year. The industry employs nearly 131,000 Americans across all 50 states, including 20,000 wind manufacturing jobs at over 450 facilities.

Studies Find No Detrimental Impact on Property Values

- **Rural Appraisals:** A study was conducted on behalf of a nearby Chamber of Commerce to investigate the impact of wind power projects on rural property value appraisals from 2002 to 2019.
 - The study found **no statistically significant impact on property values post-construction** in rural Kansas.
- **Agricultural Land Values:** Several studies explored the impacts of wind energy on agricultural land values.
 - Two studies, one by Gabriel Sampson and others in 2020 and another by Chris Schultz and others in 2019, concluded that Pennsylvania and Kansas **property values are not impacted by turbine installation.**
 - A third study, by Olena Myrna and others in 2019, found evidence of **an increase in the value of agricultural land in proximity to wind turbines.** The researchers also found lands that host wind turbines had a higher property value increase. They found that higher cumulative capacity of wind turbines in an area is associated with higher farmland transaction prices, with an approximately 0.004% increase in farmland sale prices for each 1% increase in wind turbine capacity.
- **Attitudes Matter:** An Ontario-based study by Richard Vyn highlighted the importance of local attitudes toward wind energy in shaping residential property values. Vyn compared communities that had expressed opposition to wind (through a municipal declaration against wind) with unopposed communities. He found that the impact of wind turbines on property values may be influenced by local attitudes toward wind energy development. The more negative attitudes were toward wind energy projects, the increased likelihood that property values would decrease.
 - However, LBNL conducted a study of attitudes toward wind turbine neighbors which found that **92 percent of people living within five miles of a wind turbine reported positive or neutral experiences.**
- **Platted vs. Unplatted:** Researchers at the University of Oklahoma conducted an analysis of 23,000 residential real estate records in five counties in Western Oklahoma, exploring the sale price of platted and unplatted properties before announcement, after announcement, and after turbine construction. They found that there is no significant decrease in property values for homes or unplatted property near wind farms.
 - Among plots of unplatted land between 0.5 – 1 mile away from turbines, the median sale price increased, both after announcement and after construction.

In Some Instances, Wind Installations Showed an Increase Property Values

The 2022 analysis by Eric J. Brunner and David J. Schwegman found that home values increase on a county-wide basis after a wind energy project has begun operating. The authors found this increase in home values to be driven primarily by the impact of wind energy in rural counties, most notably in rural counties with a significant amount of installed wind energy generating capacity.

A 2025 study by Ben Hoen, Eric Brunner, and David Schwegman also found that wind projects “lead to economically meaningful increases in district-wide housing values of approximately 3%, when those values are compared to similar homes located in school districts in same-county without wind energy.” The study compares home values within a school-district before and after a wind energy project is installed to home values in school districts without wind energy projects in the same county to provide some of the first causal evidence of wind energy projects influencing property values in the same district. This increase in property values is also strongly correlated with the size of the wind project.



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