



Review of Studies Evaluating the Impact of Wind Farms on Property Values

Wind Energy Working Group

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Why I Am Here

Report in Progress: “Assessment of Innovative Energy Opportunities in West Virginia”

- **Are evaluating:**
 - **Wind – 3,800 MW potential**
 - **Landfill Gas – 15 MW minimum potential**
 - **Wood Waste – 1.4 million tons/year**
 - **Poultry Waste – 140,000 tons/year minimum**
 - **Coalbed Methane – about 300 wells**
 - **Waste Coal (wet and dry) – unknown potential**

A Renewable Resource - Wood Waste

- South Point, OH – 200 MW, sawdust and wood chips
- Kanawha County – potential 250,000 tons/yr; industrial boiler
- European markets – possible 500,000 tons pellets/yr order to England; incentives result from Kyoto Protocol

WV Potential: about 1.4 million tons/yr available from sawmills and secondary manufacturers (Appalachian Hardwood Center)

- Substantial tax credits
- Industrial operations look to reduce energy costs and hedge market participation.

A Waste Resource – Coal Fines

Issues: Site specific variation in coal size, waste %, btus, chemical content. Transport. Quantity unknown. Handleability.

Coal Impoundments in West Virginia

SOURCE: Regional Coal Slurry Information System from the Transportation and Economic Development Information System (TEDIS)



Wind Impacts Review Methodology

- Looked at scholarly and non-scholarly publications of studies conducted since 1990
- Comprehensive review of results evaluated in the U.S.
- Emphasis on larger-scale facilities (> 10 MW)

Renewable Energy Policy Project (2003)

- Database of ten facilities that came online after 1998 but before 2002: five in the east, two in the west and three in the midwest.
- Evaluated properties within the facilities' five mile viewsheds against properties in the comparable community
- **Case 1:** price changes three years before through three years after in viewshed vs. region → 8 of 10 areas saw faster growth in viewshed property values than in the region
- **Case 2:** price changes in viewshed before and after the facility came online → In 9 of 10 areas, property values increased faster after.
- **Case 3:** price changes in the viewshed vs. the region after the facility came online → In 9 of 10 areas, property values increased faster in the viewshed than in the region.

ECONorthwest (2002)

- **Looked at 22 projects in 13 counties in Western and Midwestern states. Six counties have houses with views of turbines, six do not.**
- **Conclusions are based on interviews with county tax assessors.**
- **No evidence of decreasing property values. One county reported an increase in value of properties eligible for wind (“wind energy zone”).**

Northwest Economic Associates (2003)

- Payments made by turbine developers to landowners to site their facilities may increase prices of replacement land nearby.
- Landowners of turbine sites may invest payments received in additional nearby land.
- Competition between these often multiple landowners could drive up prices of replacement land.
- The infrequency with which these rural properties go up for sale amplifies this outcome.

In the United Kingdom

- Interviews with residents of Novar, Scotland (1988): 72 percent said wind farm had no impact on property values
- Interviews with residents of Taff Ely, South Wales (1997): 78 percent said no impact
- Nympsfield, Gloucestershire, England (1998): house prices continued to gain value after plans were announced in 1992 and continued to increase after the facility began operation in 1997

Differing results

- **None of the U.S. reports that indicated negative impacts had any data to support that conclusion. Conclusions were based on:**
 - Interviews with residents during the planning stage of a project (Cape Cod, MA)
 - Interviews with residents after installation – 52% said they would not want to live within two miles of the facility (Lincoln, WI).
- **Danish Institute of Local Government Studies – houses in close proximity to windmills are cheaper than comparable houses far away. Survey of those living in the vicinity: 13% of residents viewed the windmills as a nuisance (1996)**

Transmission Lines (1992)

- Evidence that high voltage power lines do negatively impact property values, but that impact largely disappears over time.
- General consensus among appraisers: properties adjacent to transmission lines are valued 10% lower than comparable properties.
- Most appraisers used a “matched pairs” evaluation comparing adjacent and non-adjacent properties.
- Impact is from: 1) perceived eyesore, and 2) perceived and potential health risks from electromagnetic field radiation (newer response).

Applicability to West Virginia

- Rural nature of high wind areas makes difficult to observe property value impacts because of little to no turnover.
- Tucker County: in one town within the viewshed of Mountaineer only two tracts of land changed hands in the last 15 years. Most adjacent property is Federal or corporate.
- Tucker County as a whole has seen increased valuation for new properties.
- No consensus as to whether turbines attract or repel tourists. Tucker County Commission and some real estate agents say attract.

Summary

- No calculated evidence that wind turbines negatively impact property values in the U.S.
- Impacts within a two-mile radius could be different than for the viewshed as a whole and for the comparable community as a whole.
- Individuals perceive the facilities differently.
- Upward housing valuations induced by purchasing power of new participants in rural real estate markets may overshadow any impacts.