



# Invenenergy

## POOR MOUNTAIN WIND ENERGY PROJECT

*Invenenergy LLC, a leading wind energy development company based in Chicago, is currently reviewing a site on Poor Mountain in western Roanoke County for a potential wind energy project. The project would be the first significant renewable energy resource for the Roanoke Valley. We want to provide you with facts about this proposed project and address some concerns that are typically raised about wind energy projects.*

Invenenergy is entering the exploratory stage in Roanoke County, there is much more research to be conducted before determining whether this site is feasible. For instance, one of the first steps will be to file an evaluation request with the Federal Aviation Administration (FAA) to determine if placing turbines at the site could create any issues for aircraft in the area.

As we begin to seek review and comment from federal, state, and local officials, Invenenergy also wants to begin engaging the Roanoke Valley and surrounding community to work together on creating a project in which everyone can be proud.



## Project Overview

### Location:

Poor Mountain, Roanoke County, Virginia

### Projected Megawatts of Energy (Estimate):

15-18 turbines, 37.5 MW to 45 MW

### Average Households Powered:

The equivalent of approximately 8,500 to 10,000 households in the Roanoke Valley (based on direct electricity data from AEP for Roanoke Valley homes).

### Height of Turbines:

- 1) To tip of blade= 443 ft (135m)
- 2) Hub Height = 278 ft (85m)

## Location Benefits

- Poor Mountain-Bent Mountain ridgeline has previously been developed and hosts both TV and radio towers that serve the Roanoke Valley and Southwest Virginia. Care will be taken to integrate visual impacts into the existing visual landscape. The project can be designed in a way as to minimize impacts to views from neighbors and the Blue Ridge Parkway.
- Existing Appalachian Power transmission lines intersect the proposed site; therefore interconnection would result in minimal impacts to wildlife due to habitat fragmentation.
- Road access to the site currently exists, resulting in minimal road construction impacts.
- The proposed project site is over 2000 acres. Preliminary site design suggests turbines will be located a significant distance from adjacent properties and dwellings, thus minimizing or eliminating the potential for sound or shadow flicker impacts.

## Economic Benefits

**Construction Benefits:** For every wind turbine constructed, Invenenergy spends approximately \$200,000 on local concrete, gravel, labor, and miscellaneous items. For a 37.5 MW project of this size, this is a total of \$3 million.

**Short Term jobs:** A wind farm of this size would generate 9-12 months of employment for 50-100 part time positions.

**Long Term jobs:** A wind farm of this size would directly support 2-3 full time salaried positions, with full benefits. Typically, these positions would include a site manager, site administrator, and a technical position.

**Local Revenues (taxes):** Invenenergy is in the process of estimating the local tax revenues in cooperation with Roanoke County government. In those Virginia localities where local governments have approved wind farms, the projected revenues to the localities range from \$200,000 (Highland) to \$600,000 (Wise) per year.

## Environmental and Community Benefits

Developing wind power in Virginia will reduce our reliance on fossil fuels, reduce CO2 emissions and conserve water. Every kilowatt-hour generated by wind energy displaces electricity that would have been produced by burning fossil fuels (usually coal or natural gas) – thereby reducing fuel consumption and the resulting air pollution that would have otherwise occurred. Using the Roanoke Valley Cool Cities carbon footprint calculator, a wind facility of this size can reduce carbon emissions by 98,000 tons per year in Roanoke County. Additionally, while conventional forms of electricity generation (including nuclear energy) consume large amounts of water, wind turbines require minimal amounts of water to produce power. Roanoke County's carbon emissions reduction goal is 3% annually. This wind facility, alone, would offset Roanoke County carbon emissions by 5.4 to 6.5% per year, depending on the final number of turbines. To put this in perspective, this represents an offset of emissions equivalent to that generated by 18,000 to 21,500 cars each year.

---

The logo for Invenenergy, featuring the word "Invenenergy" in a serif font. The "In" is in a dark grey color, and "venenergy" is in a green color.