330–420 feet high

Blades sweeping 1-2 acres vertical area, tip speed 150-200 mph

Dead birds and bats

Disturbed ground animals

Noise and vibration

Dozens of tons of concrete in each foundation

Roads and transmission lines

Disrupted water flow

Fragmented wildlife habitat

Shadow flicker

Strobe lights day and night

Visual intrusion and distraction

Degradation of social and natural environments

Misplaced public funds

Unproven benefits

Unreliable contracts

### Learn more!

#### **Vermonters with Vision**

(www.vermonterswithvision.org)

## **Ridge Protectors**

(www.ridgeprotectors.org)

# **Kingdom Commons Group**

(www.kingdomcommonsgroup.org)

## **Glebe Mountain Group**

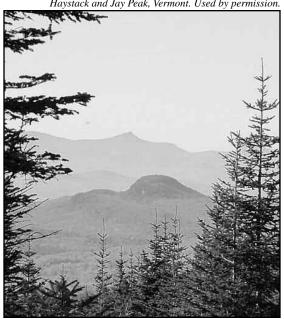
(www.glebemountaingroup.org)

## **Industrial Wind Energy Opposition**

(www.aweo.org)



Haystack and Jay Peak, Vermont. Used by permission.



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SAY NO! to destroying the environment and our communities

NO **INDUSTRIAL** WIND!

# Low Benefit — Huge Negative Impact

Industrial wind promoters claim their machines produce on average 30–40% of their rated capacity. For example, a 400-ft-high 2-megawatt (2,000-kilowatt) turbine assembly would produce an average of 600–800 kilowatts over a year.

The actual experience of industrial wind power in the U.S., however, as reported to the federal Energy Information Agency, is that it produces only about 25% of its capacity, or 500 kilowatts.

It will produce at or above that average rate only a third of the time. It will generate nothing at all (yet draw power from the grid) another third of the time.

Because the output is highly variable and rarely correlates with demand, other sources of energy cannot be taken off line. With the extra burden of balancing the wind energy, those sources may even use more fuel (just as cars use more gas in stopand-go city driving than in more steady highway driving).

The industry is unable to show any evidence that wind power on the grid reduces the use of other fuels.

Denmark, despite claims that wind turbines produce 20% of its electricity, has not reduced its use of other fuels because of them.

Large-scale wind power does not reduce our dependence on other fuels, does not stabilize prices, does not reduce emissions or pollution, and does not mitigate global warming.

Instead, each turbine assembly requires dozens of acres of clearance and dominates the typically rural or wild landscape where it is sited. Its extreme height, turning rotor blades, unavoidable noise and vibration, and strobe lighting night and day ensure an intrusiveness far out of proportion to its elusive contribution.

Each facility requires new transmission infrastructure and new or upgraded (strengthened, widened, and straightened) roads, further degrading the environment and fragmenting habitats.

#### Why do utilities support them?

Given a choice, most utilities choose to avoid such an unreliable nondispatchable source. In many states, they are required to get a certain percentage of their energy from renewable sources. In other states, they anticipate being required to do so in the near future. These requirements do not require utilities to show any benefit (e.g., in terms of emissions) from using renewables—they just need to have them on line.

In Japan, many utilities limit the amount of wind power that they will accept. In Germany, the grid managers frequently shut down the wind turbines to keep the system stable. In Denmark, most of the energy from wind turbines has to be shunted to pumped hydro facilities in Norway and Sweden.

Yet wind energy is profitable. Taxpayers cover two-thirds to three-fourths of the cost of erecting giant wind turbines. Governments require utilities to buy the energy, even though it does not effectively displace other sources.

In addition, wind companies can sell "renewable energy credits," or "green tags," an invention of Enron. They are thus able to sell the same energy twice.

The companies generally cut the local utilities in on some of the easy profits.

#### Why do communities support them?

Developers typically target poor communities and make deals with individual landowners and the town boards (which are very often the same people) long before anything is made public.

With the prospect of adding substantially to the tax rolls and/or hundreds of thousands of dollars in payoffs each year, it is understandable that a lot of people are reluctant to consider the negative impacts. They are willing to ignore the effects of such large machines on themselves and their neighbors. Excited by the financial promises of the wind companies, they forget that their giant machines will destroy precisely what makes their community livable.

As people find out more, support for the harmful boondoggle evaporates.