

Environmentally Short Sighted in Maryland and West Virginia

Many have been misled about the true costs and benefits of electricity from wind energy--in particular, the adverse environmental, ecological, scenic and property value impact where the "wind farms" are being constructed.

The following facts need to be considered:

1. Electricity produced from wind does not contribute to electric system security or stability. Wind turbines produce electricity only when the wind is blowing within certain speed ranges. Therefore, their output is intermittent, highly variable, and largely unpredictable and uncontrollable. They detract from - rather than add to - electric system security, stability and reliability. Because electric systems must be constantly kept in balance (supply-demand, frequency, voltage, transmission line load), reliable generating units powered by traditional energy sources (coal, natural gas, oil, nuclear energy or hydropower) must be immediately available to "back up" the unreliable output from "wind farms."

2. Promoters of wind energy routinely overstate environmental benefits. They incorrectly assume that each kilowatt-hour (kWh) of electricity produced by a wind turbine displaces a kWh of electricity produced by a fossil-fuel generating unit. The reliable generating units that are serving in the "backup" role for the unreliable electricity output from wind turbines must be running at less than full capacity and efficiency or running in a "spinning reserve" mode. While operating in these modes, fossil-fueled units are producing emissions. Therefore, the contribution of wind turbines to emission reduction will be tiny, at best, and perhaps non-existent. In addition to the incorrect assumption by kWh-per-kWh offsets, wind energy advocates often use outdated information about generating plant emissions when making their claims.

3. Promoters of wind energy routinely ignore "wind farm" environmental damage. Electricity from wind is NOT environmentally benign. Damages caused by "wind farms" are becoming increasingly clear, which explains the growing opposition to them in the US and Europe. "Wind farms" adversely affect a wide variety of environmental, ecological, scenic and property values.

Concerns include bird kills, interference with bird migration patterns, noise and "flicker" effects of the revolving blades. Local governments carrying out their health and safety responsibilities are finding that they must be concerned about ice throws from revolving blades and possible blade disintegration.

The scenic impact of "wind farms" was graphically described by an Oregon official who, after passing FPLEnergy's facility along the Washington-Oregon state line, was quoted in a Washington paper as saying: "Could anyone think it's

anything other than ugly?" and "How is it different than wanting to put up a big ugly billboard?"

4. The huge machines (often taller than the 300 ft. US Capitol) produce very little electricity. If FPLEnergy's 66-megawatt "wind farm" on West Virginia's Backbone, with its 44 wind turbines spread over 4,400 acres, achieves an annual 30% capacity factor, it will produce 173,448,000 kWh of electricity each year (i.e., 66,000 kW x 8760 hours x .30). That sounds like a lot of electricity but, in fact, it is equal to:

- a. 24/100 of 1% of the 71,569,000,000 kWh of electricity sold by electric utilities in Maryland and the District of Columbia during 2000.
- b. 19/100 of 1% of the 92,783,000,000 kWh of electricity produced in West Virginia during 2000.

5. The tiny amount of electricity that Montgomery County, Maryland, plans to purchase would make no significant impact on air quality in the Washington area. Those 11,300,000 kilowatt-hours (kWh) may sound like a lot. However, it is equivalent to 19/1000 of 1% of the 60,963,000,000 kWh of electricity sold by electric utilities in Maryland during 2000.

6. The primary driving force for the construction of "wind farms" is the "windfall" profits accruing to their owners as a result of generous federal and state tax shelters and other subsidies - not environmental benefits. "Wind farms" provide few environmental benefits and few, if any, net economic benefits to the areas where they are located. For example, a company now proposing a new 300 megawatt "wind farm" in West Virginia costing \$300,000,000 would be able to:

- a. Shelter \$132,000,000 from federal income tax liability in the tax year when the project went into service, an additional \$67,200,000 in the second year, \$40,320,000 in the third year, and the remaining \$60,480,000 in the next 3 years because of generous accelerated depreciation allowed for "wind farms." Assuming a marginal tax rate of 35%, this could reduce the company's federal tax liability by \$46,200,000 in the first year, \$23,530,000 in the second year, \$14,112,000 in the third year and \$21,168,000 in the next 3 years.
- b. Deduct an additional \$14,191,200 per year for 10 years from its federal tax liability because of federal Production Tax Credits of \$0.018 per kWh for electricity produced by the "wind farm."
- c. Escape significant West Virginia corporate income tax liability because of the federal accelerated depreciation deductions reduces taxable income. The tax that could be avoided could amount to 9% (the WV corporate tax rate) of the amount of the federal depreciation deduction; i.e., \$11,880,000 in the first year,

\$6,048,000 in the second year, \$3,628,800 in the third year, and \$5,443,200 in the next three years.

d. Avoid approximately 90% of the normal liability for the West Virginia's Business & Occupation Tax and for the West Virginia Property Tax that provides funds for County and School functions -- because of special tax breaks passed by the West Virginia Legislature. (This benefit would be worth \$2.5 to \$3 million per year in avoided taxes.)

The above federal and state tax breaks add up to \$77,423,460 in the first year, \$48,911,460 in the second year and a total of \$325,434,600 for the first 10 years. The tax breaks for "wind farm" owners shift tax burden to remaining taxpayers.

The value of the tax breaks to the "wind farm" owner would easily exceed the owner's income from the sale of electricity in the early years of the project. That income would be approximately \$23,652,000 per year if the "wind farm" achieved a 30% capacity factor and the electricity were sold for \$0.03 per kWh (i.e., $300,000 \text{ kW} \times 8760 \text{ hrs.} \times .30 \text{ capacity factor} \times \$0.03 \text{ per kWh sale price}$).

Symbolism rather than substance

It is a disgrace that companies try to promote their environmental image while ignoring the adverse environmental, ecological, scenic and property value impacts in West Virginia where the giant windmills are located.

The public, media, Congress and other government officials should not be misled by false or misleading claims about environmental or other benefits of government or private actions.