

Questioning the faith of wind power

David Roberson, March 17, 2005

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Development of wind power plants is swiftly becoming the most critical rural conservation and land-use issue of our time. But many who support wind power are sadly unaware of the technology's serious impacts and have accepted on faith the seductive vision offered by the industry: that wind power is clean, green energy.

We are led to believe that construction of wind plants is progressive and ecologically responsible development that will lessen our reliance on foreign oil and reduce global warming. Opponents are often dismissed as elitists who care more for the appearance of the landscape than for saving the planet. For some folks, it seems, if you aren't into wind power then you are an "anti-environmentalist." That is untrue, and I find it disturbing that this attitude seems so prevalent.

I don't like to represent myself as an exemplar of any green ideal, but I feel a deep personal connection to nature. My wife and I garden organically, raise much of our own meat and dairy, and try to live simply and sustainably. We heat our home almost exclusively with wood that I cut on our land.

When we left our rented home in Hawley, where we lived for 12 years without AC electricity, and moved to Rowe, one of my first thoughts was to put up a wind generator, get some batteries and an inverter, and continue to live independent of the power company.

After I pondered and researched the matter, I came to feel that erecting a wind generator to power my grid-connected house would amount to a noisy, expensive eyesore that would represent nothing more than a symbolic commitment to an ideal.

Now, I feel the same way about large-scale wind.

We are asked -- expected, really -- to take it on faith that the environmental benefit of wind energy is worth the cost. The problem is, wind power won't deliver what is promised.

Electricity is produced from a variety of sources in this country, but oil simply isn't a significant supplier to our electrical mix, accounting for less than 2 1/2 percent of U.S. generation -- and even this small fraction is unlikely to be impacted by wind plant development.

Beyond this, those who think that we face a choice between turbines and smokestacks or nuclear plants are kidding themselves. The erratic nature of the wind means that turbines simply cannot supply the base load that other forms of generation do. Those other generators will continue to be needed to back up the wildly variable output of wind turbines, with the probability that in so doing these plants will actually emit more pollution for each kilowatt-hour they generate than if they were allowed to operate normally.

In Denmark the vast majority of their wind-generated electricity has to be exported to neighboring countries at a deep discount, and they are then forced to re-import expensive nuclear power. This has led in part to that country having among the highest electric rates in Europe, and Danish carbon dioxide emissions continue to rise. In Germany, wind plants are widely regretted for the brutal destruction they have inflicted where they have come to dominate the landscape.

What is worse, giant wind plants produce very little electricity. The Hoosac Wind project proposed for the towns of Monroe and Florida, with 20 turbines -- each 340 feet high -- spread out over 1,500 acres and miles of ridge on two mountains, might optimistically produce 14/100 of 1 percent of the electricity used in Massachusetts annually. A hundred and twenty such turbines spiking our ridges would likely produce less than one percent of the electricity used in the state, while that electrical use is going up by around 2 percent -- more than twice as much -- every year. Even if we were to construct new wind towers as fast as we possibly could -- in the process transforming western Massachusetts into a science-fiction landscape bristling with enormous black-bladed turbines, lit day and night with flashing strobes -- we wouldn't even begin to keep up.

The wind industry assures us that wind power will help prevent global warming by reducing carbon dioxide produced by other forms of electric generation. Enxco, the company backing Hoosac Wind, has offered improbably optimistic projections of how much carbon dioxide emission might be avoided by the operation of the plant.

But even if we take their figures at face value, they amount to a mere 23/100ths of 1 percent of that fraction of carbon dioxide that results from electricity generation in Massachusetts, or about 8/10,000ths of 1 percent of US anthropogenic (human-caused) greenhouse gas emissions. In this country, greenhouse gas emissions resulting from electrical generation are outweighed by other man-made sources 2-to-1, while anthropogenic emissions as a whole account for about 3 percent of the world total; the remaining 97 percent comes from natural sources such as oceans and bogs.

In a nutshell: Hoosac Wind's potential contribution to reducing greenhouse gas emissions, when taken in a broader context, is almost incalculably small.

Unfortunately, for some people the inconvenient truths about wind energy will be too uncomfortable to contemplate. "It's the vision, not the view," they'll say, insisting that the turbines have a symbolic value that trumps their negative impacts on wildlife, on rural economies, and on the quality of life of residents forced to live with them. Wind plant proponents know that having secured the hearts of much of the public in this way, reasoned opposition to their plans to industrialize vast swaths of rural America can be marginalized -- and they are spending enormous amounts of money to do just that.

The real reason that multinational entities are intent on constructing wind towers is the combination of generous tax credits and depreciation allowances that are provided for these developments. Huge corporations like Enxco parent EDF -- the French energy conglomerate that is the largest operator of nuclear reactors in the world, as well as Europe's leading trader of coal, gas, and oil -- consequently form unlikely alliances with organizations that have historically championed preservation. The beauty and ecological integrity of our few remaining wild places is thus sacrificed to a green idealism.

To see the future of the wind debate in America, it's instructive to look overseas. In the United Kingdom, central government policies promoting wind development have sparked a wave of outrage and opposition in rural areas targeted for massive wind plants.

Prime Minister Tony Blair has lent his support to opponents of one wind power proposal among his home constituency, while his government has issued policy that hobbles the ability of other communities to reject wind plants. His attitude mirrors our own Governor Mitt Romney's hypocritical opposition to wind power, which apparently applies only to Nantucket Sound. Meanwhile, the director appointed by the governor to the state's highest environmental authority has stated that her decision not to require an environmental impact report for Hoosac Wind "will set the tone for further development of wind power" in inland Massachusetts.

It appears the scenario in Britain is poised to repeat itself here. Rural communities -- from the Gaspé Peninsula in Québec straight down the Appalachian range to the Allegheny Front -- are destined for thousands of turbines if current plans materialize, and Franklin County is in the center of the crosshairs, with the construction of the largest wind plant in New England possibly beginning here next year. While developers offer glib assurances that their projects are beneficial, those questioning these facilities believe that the issues surrounding renewable energy deserve critical and substantive debate, not sloganeering.

[Editor's note: Mr. Roberson has informed me that the promotion of industrial wind power in Massachusetts includes a push for the creation of more municipal utilities, which are conveniently exempt from local zoning restrictions.]