

Against The Wind

By John Droz, jr.

I am a physicist who has been an environmental activist for more than 25 years. I belong to the Adirondack Council, the Association for the Protection of the Adirondacks, the Residents' Committee to Protect the Adirondacks, and the Sierra Club, among others.

Like other environmentalists, I believe we need aggressive and meaningful changes in our energy policies. This urgency, though, shouldn't mean we abandon rational thinking. I am adamantly opposed to the "let's do *something*, no matter how foolish" mentality — which wind power represents.

In graduate school I learned scientific methodology: when a new idea is proposed as a potential solution to a problem, the proponents must **prove** its efficacy before it will be seriously considered.

Here we have businessmen, profiteers, politicians and well-intentioned environmentalists proposing wind power as a partial solution to global warming — so they must provide **independent, objective** proof that wind power is a viable solution from all pertinent perspectives. This has not happened. *Mañana* is their mantra.

Global warming is too critical an issue for us to waste time and money on trivial solutions. Just because something is a "renewable" energy source, it doesn't get a free pass. For a "renewable" source to make a meaningful impact on our energy and climate problems, it must: (1) be able to provide base-load (and related) power, (2) make financial sense on its own, and (3) not cause consequential environmental destruction.

Wind power fails on all three counts.

Base-load power. Wind is an unpredictable commodity. No one knows exactly how much wind will be blowing at the Maple Ridge Wind Farm at 3 p.m. tomorrow, much less a week from now. This is a BIG deal for the electrical grid, as cutting the wind speed in half reduces the electrical output by about 90%. On many occasions, in fact, wind power output at any facility will go to zero. Today, industrial wind power energy can't be stored, practically or economically, so it must be used immediately.

These facts lead us to conclude that wind power is unlikely to provide base-load (and related) electrical power. (Base-load is the minimum level of power needed 24 hours a day.) So when adding wind power to the grid, backup from conventional sources (like coal and nuclear) must still be built. Even in the short term, the complexity of nuclear and coal-fired power plants means they cannot simply be "turned down" when wind power is available. The net result: cuts in emissions of carbon dioxide, the main cause of global warming, are small. Wind power's promoters tell us this maybe better *mañana*.

Economics. Wind power is far more expensive than conventional sources of energy. In May, the *Wall Street Journal* said, "A better way to tell the story is by how much taxpayer money is dispensed per unit of energy, so the costs are standardized. For electricity generation, the US Energy Information Administration concludes that wind energy is subsidized to the tune of \$23 per megawatt-hour. By contrast, normal coal receives 44 cents per megawatt-hour, natural gas 25 cents, hydroelectric 67 cents, and nuclear power \$1.59." Huge artificial subsidies are driving the wind-power business. Promoters say it will get better, *mañana*.

Environmental damage. Wind power is not "clean" energy as it inflicts significant environmental damage. For example, in every modern tower there is a huge concrete base. The manufacture and delivery of the cement in each base produces about 250,000 pounds of CO₂. There are numerous other environmental problems with wind power which the promoters don't want to talk about.

If you research wind power you'll get one very clear message: The proponents (usually those with a financial stake) are asking you to take a huge leap of faith that everything will work out *mañana*. There are about 50,000 wind turbines in operation throughout the world, so there should be incontrovertible evidence that they work as advertised. Today, not *mañana*.

Yet no such evidence exists!

A National Academy of Science report says: “Projections for future wind energy contributions to reduction of air-pollutant emissions in the US are **highly uncertain** ... Using future **projections** ... the committee **estimates** ... that wind energy **probably** ... will contribute to offset **approximately** 1.8% of US CO2 emissions [my emphasis].”

Four significant qualifiers in the report’s second sentence. So developers want us to spend over a hundred billion dollars and just hope that this huge 1.8% CO2 saving materializes — 12 years from now. This was cited last issue as “the best data available.” Give me a break!

The bottom line is wind power will reduce only trivial amounts of CO2, and what is reduced will be extraordinarily expensive, with serious environmental desecration of scenic treasures such as the Adirondacks, the Thousand Islands, and the Finger Lakes. This is more foolish than ethanol.

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