

THE JEFFERSON JOURNAL

...a commentary from
THE THOMAS JEFFERSON INSTITUTE FOR PUBLIC POLICY

Death By Wind

By David Schnare

2/22/2011 -- On February 7th, the federal bureaucracy announced its plans for off-shore wind energy. To mark the occasion, Virginia Governor McDonnell stated that the Commonwealth must use “a diverse portfolio of fuels, including . . . offshore and onshore wind At the same time we must also maintain reasonable energy costs and a reliable, consistent supply.” Problem is, you can’t do both.

Two recent, peer-reviewed and unimpeached studies explain why wind energy, a 17th century technology, has no sensible place in a 21st century civilization. The energy windmills offer is not free, not clean, not reliable and not consistent. And it doesn’t create new jobs. Here’s why.

The wind blows, except when it doesn’t. And, wind speed varies on a second by second basis. Thus, wind energy produces electricity in fits and spurts. To prevent blackouts and brownouts, we need extremely consistent electricity. The voltage supplied to our electrical grid must exactly meet the demand and the frequency cannot vary by any more than five cycles in 60 (8.3%) or electrical equipment shuts itself down to prevent damage to motors and circuits.

In an effort to make wind energy useful, electricity generators have to “back-up” the wind energy with other generation capacity, like natural gas and sometimes coal power. When the wind goes down, the back-up energy must fill in – on a second by second basis. Thus, building a 150 megawatt wind farm means one must also build a 150 megawatt fossil fueled back-up supply.

They don’t tell you this at the wind energy pep rally.

To understand what this need for back-up energy means in terms of reliability and pollution, Bentek Energy, LLC. took a hard look at the issue, publishing an April 2010 report entitled: “[How Less Became More: Wind, Power and Unintended Consequences in the Colorado Energy Market](#)“. It takes the wind out of the wind-power sails. In sum, they conclude that the use of wind energy resulted in increased levels of SO2 (acid rain), NOx (smog) and CO2 (greenhouse gas).

The reason wind isn’t clean is specifically because of the back-up energy needed. Imagine it this way. If you race your car up a hill, then glide down the other side, then speed up, then slow down, then let it idle for a couple of hours, then race back into traffic, then slow down, then You get the picture. Horrid gas mileage. And guess what else. The pollution control devices were designed to work on a steady emissions stream, not on one that is as variable as the wind. So, it takes more fuel and it doesn’t scrub the pollution out as well.

Voila, dirty air from windmills. And what about cost?

9035 Golden Sunset Lane ■ Springfield, Virginia 22153 ■ 703/440-9447 ■ info@thomasjeffersoninst.org

The cost of having to build redundant back-up energy is obvious, but that's not the end of the accounting. Take a look at the American Tradition Institute's new report on proposed federal Renewable Energy Standards – the proposal to mandate 30 percent of all electricity to be generated by “renewable” sources under the President's state of the Union speech plan.

Renewables are dominated by wind energy – over 80 percent in the Colorado plan, for example. Thus the report, “[The Effects of Federal Renewable Portfolio Standard Legislation on the U.S. Economy](#)” could as easily be called: “The effects of mandatory wind power.”

The costs are massive in any way they are explained. The study examines three levels of wind energy, but to meet the President's plan, we can concentrate on the 30 percent level. The study also looks at low, medium and high cost assumptions. The high assumptions are based on real world data. The low cost assumptions come from the federal government.

Now, let's begin with your pocket book. According to this study, to enjoy the increased number of blackouts and brownouts from reliance on wind power, you will have the honor of losing between \$350 and \$1,300 in disposable family income.

Of course, you still have a job. Maybe. A 30 percent wind energy mandate will reduce national employment by 409,000 to 1.5 million jobs. And if you think a windmill factory is going to take care of that – think again. Think “China.” They have the essential rare earth minerals needed to make the required magnets and they are using this as leverage to force manufacture of the entire windmill on their own shores. At most, we will get some temporary ditch digging jobs.

The real kicker is what these costs mean in terms of health. In addition to the increased acid rain and smog, the fact is that poor people are less able to maintain their health than rich people, so the loss of income also means increased bad health. How much? The 30 percent mandated wind energy would cause from 3,300 to 12,500 additional premature deaths in the nation, mortality rates higher than from operating room errors and HIV, respectively.

So, Governor, the research says you can't have it both ways. Either you can have reasonable energy costs and reliable, consistent supply or you can have wind power. I'm thinking Virginians want to keep their jobs, their money and their health. You can deep six the windmills somewhere offshore.

-30-

Dr. David Schnare is an earth scientist and environmental attorney, and serves as Director of the Center for Environmental Stewardship at the Thomas Jefferson Institute for Public Policy. Dr. Schnare can be reached at info@thomasjeffersoninst.org.