

A Balanced Approach to Commercial Wind Energy Development in Virginia

Rick Webb

The current controversy over the proposed wind energy project in Highland County presents a dilemma for Virginia's conservation-minded citizens. On the one hand, we clearly need to develop clean, sustainable, and homegrown sources of energy if we are to solve our environmental problems and achieve independence from foreign sources. On the other hand, modern commercial wind development presents its own set of problems due to the massive scale and numbers of the turbines, the ecological sensitivity of mountain and coastal areas with high wind-energy potential, and the absence of any reliable pre-development assessment process.

Wind energy advocates argue that the magnitude of the crisis we face is so great that all other issues are moot. They cite the significant ecological and human costs of an economy based on fossil fuel consumption, including mountain top removal coal mining, air pollution, acid rain, and global warming. They point to the sacrifices of our armed forces in the Middle East. They assert a moral imperative that trumps other concerns.

Wind energy skeptics argue that wind development is not a real solution to our energy problems. They cite the ever-increasing use of electricity in Virginia, and observe that wind development cannot even keep pace with the growth in demand. They point out that wind is an intermittent resource and that we will still need the same fossil fuel generation capacity, up and running, to provide electricity when the wind isn't blowing. They point out that commercial wind energy requires taxpayer subsidies to be economically viable.

Wind energy advocates will argue that we have to do something, that every little bit helps, and that wind energy development should be viewed as part of a package that includes development of other renewable energy sources and energy conservation.

This is quite reasonable, up to a point. Certainly no one will argue with the need for conservation. We are simply not going to produce our way out our energy problem -at least not with the currently available options. And no one will argue that we shouldn't seriously address the need for clean sources of energy. But being serious shouldn't require indiscriminate support for any and all wind projects. If wind energy is indeed the green alternative that its well-meaning advocates claim, there is no reason not to require the same level of review and cost-benefit analysis that we would require for any other industrial-scale development in environmentally sensitive areas.

If we are serious about addressing our energy problem, and serious enough to invest our own time and energy to finding sustainable solutions, we will find a way to insure that each proposed wind project can be evaluated on its own merits. That will require a process for insuring objective site-specific assessments for each project. At present, there is no process in place to insure that reliable assessment will occur. The process provided by the National Environmental Policy Act only applies when federal decisions are involved. The process whereby the State Corporation Commission assesses the environmental effects of power plants has never been applied to wind projects, and the SCC and other state agencies do not have the resources to conduct meaningful assessments.

Yet now that federal tax subsidies for wind development have been extended and other states are requiring utilities to purchase renewable energy, we can expect a wave of wind development in Virginia. Surrounding states have already permitted projects involving hundreds of turbines. Wind development on our mountain ridges and in our coastal waters will happen whether we are prepared or not. We need, but do not have, a state-level process to insure that wind energy development will, in fact, be green energy development.

Published in the *Roanoke Times*, Sunday 21 November 2004, under the title "Wind Energy Has Pluses - and Minuses." The following was added to identify the author: "Webb is a University of Virginia research scientist and a member of a Virginia Wind Energy Collaborative group working to develop a landscape classification scheme for environmentally sensitive siting of wind projects."