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. . . But the Bill Would Achieve Little Benefit at Great Cost

By RICK WEBB

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Charlottesville. The problem of carbon emissions and global warming is finally and rightly emerging as a major public concern. However, it remains to be seen whether public policy will move beyond wishful thinking and symbolic gesture to meaningful responses.

Although the proposed Renewable Portfolio Standard (RPS) legislation may seem like a step in the right direction, closer examination reveals that what little it may achieve in terms of benefit will be obtained at a disproportionately high cost.

Simply stated, the proposed RPS legislation will not seriously reduce demand for electricity generation by traditional sources, and it will drive industrial-scale wind energy development in some of our most highly valued, scenic, and ecologically sensitive areas -- including our mountain ridges and the Chesapeake Bay.

To put the proposed RPS in context, consider that the demand for electricity in Virginia is increasing at a rate of 2.5 percent per year. At this rate, electricity use doubles in less than 30 years. Even if the proposed RPS is effectively implemented, Virginia will still require new generation capacity from coal-fired power plants and other non-renewable sources, both to satisfy the rapid growth in demand and to provide reliable backup for intermittent renewable sources.

Further consider that only 35 percent of the carbon emissions related to human activity in Virginia are derived from electricity generation. The other 65 percent are derived from transportation, industry, home heating, and the rest of our infrastructure, all of which is growing. Even if the proposed RPS is effectively implemented, Virginia will emit much more carbon in 2020 than today.

Although the proposed RPS legislation includes other components, it is primarily a wind energy mandate, essentially requiring that wind generation satisfy the largest part of the RPS objective. This would require at least 3,500 of the 400-foot turbines that are most commonly built today, or perhaps somewhat fewer of the newer 550-foot turbines. At the typical spacing of eight turbines per mile, 3,500 turbines would require over 400 miles of ridgeline development, along with accompanying roads, clearings, and transmission corridors.

A MAJOR point of contention is the need for effective environmental review of wind projects to avoid damage to wildlife and forest habitat, as well as loss of scenic and historic values. The Virginia Conservation Network, which represents more than 100 conservation organizations, has published position papers linking its support for RPS legislation to prior establishment of wind project siting standards. However, wind energy proponents have thus far blocked inclusion of siting standards in the proposed legislation, claiming that standards can be developed separately.

Wind energy development in the Chesapeake Bay and off the coast is also possible. However, development in the bay and ocean would trigger assessment under the National Environmental Policy Act, which would provide a level of review that the wind industry has thus far managed to avoid for wind projects sited on uplands of the Mid-Atlantic states. Nonetheless, Virginia's RPS advocates have brushed aside concern about extensive ridgeline and bay-floor development with assurances that most turbine construction will occur far off the coast. This is either disingenuous or

uninformed.

Although most of Virginia's wind resource is indeed offshore and wind projects have been built in the relatively shallow offshore areas of European countries, offshore development is considerably more risky and expensive, and to date there are no wind projects in service off the coast of the United States. Would Virginia legislators actually tie state energy policy to an undemonstrated technology?

ONE POINT in favor of the proposed RPS legislation is that, in addition to the renewable requirement, it requires use of energy efficiency measures to reduce electricity demand by 5 percent from what it would otherwise be in 2020. While this is a step in the right direction, it's a very small step in relation to the rapid growth in electricity demand.

The proposed RPS legislation symbolizes an inability to rationally address our energy problem and a willingness to sacrifice things of real value without careful analysis of the tradeoff. Isn't it time for more than wishful thinking and poorly considered gesture?

Rick Webb is a senior scientist with the Department of Environmental Sciences at the University of Virginia.

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