

Could "Green Energy" Replace Coal?

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As seen in the June 25th issue of *The State Journal*.

John Adams once observed that "[f]acts are stubborn things; and whatever may be our wishes, our inclinations, or dictates of our passions, they cannot alter the state of facts and evidence." As the Obama Administration intensifies its push to "wean" the Nation off its "dependence" on coal in favor of "green" energy through enactment of the "Cap and Trade" bill and imposition of onerous regulations, there are stubborn facts that should be borne in mind as we weigh the impact of this effort on our Nation and our State.

Today, the coal industry employs 30,000 individuals in West Virginia with a payroll of nearly \$2 billion per year. It accounts for over 60% of the State's business tax revenue. In addition, it generates approximately \$70 million in property and \$214 million in severance taxes annually. Coal generates 99% of the State's total electricity and is the reason why West Virginians have among the lowest electric rates in the Nation.

Nationally, we have over 273 billion tons of proven coal reserves, more than any nation in the world. The low cost and abundance of coal is one of the primary reasons why consumers in the United States enjoy the lowest electricity rates of any free-market economy in the world. It is these low energy costs that have fueled the Nation's economic prosperity over the decades.

Currently, 39% of all electricity worldwide is generated from coal. Developing nations are increasing their electric use at a rapid pace in order to improve their people's living standards. They have made clear they will not abandon those efforts. As a result, by 2035 electric demand is expected to increase by 87% worldwide.

Given these facts, is the push to displace coal as a primary energy source with "green" energy realistic? Is threatening to bankrupt those who attempt to construct coal fired power plants to meet our Nation's growing energy demands wise? Is impeding those who attempt to mine our most abundant natural resource through regulatory constraints prudent? To answer these questions, one might first look at the renewable energy source that proponents of "green" energy have most often touted as of late - wind.

While the use of wind energy continues to grow, it still accounts for less than 1% of all U.S. electric generation and is unlikely to grow much above 6%. This is due to the simple fact that winds do not always blow. In addition, winds do not always blow when and where peak electrical demands occur. As such, it is not a consistently reliable source of energy.

How do planners deal with this? The city of Jiuquan, China, provides an example. According to the September 28, 2009 Wall Street Journal, Jiuquan is intended to showcase China's commitment to "green" energy. Wind turbines with a combined generating capacity of more than 12 gigawatts are to be installed there by 2015. To assure there is electricity available when winds do not blow, however, Jiuquan is also building new coal-fired generating plants capable of producing 9.2 gigawatts of power on a consistently

reliable basis.

A comparison between the recently completed Mt. Storm Wind Farm and John Amos illustrates some of the other problems associated with wind energy. John Amos has a generating capacity of 2,933 megawatts. The Mt. Storm facility is situated along 12 miles of ridgeline and consists of 132 turbines, each standing 334 feet tall with a generating capacity of 2 MW for a total maximum output of 264 megawatts. To replace John Amos, one would need to build 1,466 turbines spread across 133 miles of ridgelines. Such a vast facility would almost certainly be opposed by those who object to such a permanent change to our mountains, those who argue that the noise generated by such a facility constitutes a nuisance, and those who object to the damage the rotating blades of the turbines would cause to birds, bats and other avian wildlife.

Given our growing energy needs, wind simply cannot replace coal as a major energy source. Ultimately, we will need to continue developing all of our energy resources. These include wind, solar, geothermal, nuclear and coal. To do that, we need to address the issues associated with the use of each in a serious way. Rather than demonizing coal and destroying the economies of coal producing states, we would be better served if our politicians recognized these facts and focused on ensuring that coal is mined and burned in a clean and efficient manner consistent with our long-term needs.