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Coal will feed Virginia's power needs

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Virginia will be using more coal for electricity production in the future than in the past for a number of reasons that become more evident and pressing every day.

We cannot go on squandering limited natural gas supplies on unlimited burning for electricity production when coal is so much more economical. Nor can we expect to see more nuclear power anytime soon, not if Congress continues to drag its feet in appropriating funds for loan guarantees to support construction of new nuclear plants. Plants are estimated to cost at least \$7 billion each and won't be ready for commercial operation until 2016 at the earliest.

Nor can we deface our Virginian coastline and countryside with towering wind turbines on a massive scale, when coal plants require much less space and are so much more reliable. While coal provides more than 50 percent of the electricity used in Virginia and nationally, renewable sources such as solar and wind supply less than 2 percent and only supply peak power because of their unreliability.

Coal plants produce "base-load" electricity, the power that is always available around the clock, to keep traffic lights on and household appliances performing when the button is pushed. That is beyond the ability of solar and wind energy, which are available only when the sun is shining and the wind is blowing at the necessary velocity.

Advocates of renewable energy shudder at the very mention of coal, arguing that it can never be made acceptable from an environmental standpoint. But contrary to the assertions of environmentalists, coal is neither dead nor dying.

In Virginia and around the nation, power plants are using it more efficiently, boosting output while reducing emissions. In fact, according to the Environmental Protection Agency, coal plants are 33 percent less polluting than in 1980 when I began shipping coal to then Virginia Power.

Advances in clean-coal technology, particularly carbon capture and storage, are achievable.

Researchers at the Massachusetts Institute of Technology concluded in a major study on the future of coal worldwide, "We believe that coal use will increase under any foreseeable scenario because it is cheap and abundant."

We are going to build more coal plants, and there is no good reason not to begin soon. Dominion Power is gearing up to build a plant in Southwest Virginia that will use clean-coal technology to improve efficiency and reduce emissions of sulfur dioxide and oxides of nitrogen.

Even with conservation, Virginia is approximately 2,000 megawatts short of what it needs when demand for electricity peaks. The proposed plant will help close the supply gap.

Meanwhile, the U.S. Department of Energy is giving high priority to research aimed at developing a practical way to capture and store coal-plant emissions of carbon dioxide that are linked to climate change. The department's proposed budget for fiscal 2009 earmarks nearly \$500 million for large-scale demonstrations of carbon storage, in which carbon dioxide is compressed into a liquid and injected deep underground into an oil field or salt cavern.

Carbon sequestration, as this process is called, has been used for many years to recover oil and gas that otherwise cannot be liberated.

In many respects, technology is the easy part. The overarching challenge is to make carbon capture and storage possible at minimum cost and without economic disruption. Achieving solutions on a large scale will take international cooperation involving all countries that use large amounts of coal.

The great advantage of coal is its availability and relatively low cost. With natural gas prices rising and more gas coming from overseas, the favorable economics of coal is its virtue.

Energy security, not independence, is another factor to consider.

The coal used for electricity generation in Virginia is produced in Central Appalachia. Some of it is still mined in Virginia, and all of it is free from the whims of foreign cartels or other interference. The United States has approximately 270 billion tons of recoverable coal reserves. America's thermal coal demand is approximately 1 billion tons per year. Even counting for growth, the reserve base can meet America's needs well into the next century.

Now, more than ever, we must do everything possible to keep Virginia's economy strong. It won't happen if we fail to provide enough base-load electricity for households, businesses and industries, or avoid power plant projects that take patience to complete. Only then can we have a stable economy, achieve environmental goals and improve our energy security.