

The Coal and Energy Commission held its first meeting of the 2008 interim on August 7 at the Wytheville Meeting Center to discuss progress on renewable energy initiatives and receive an update on the implementation of the Virginia Energy Plan and new generation projects.

Gerald Spraker, the current president of the Wythe County Farm Bureau, spoke to the Commission about the promise of biodiesel production for use in county vehicle fleets such as school buses. Biodiesel has several key advantages over traditional fuels including improved air quality, lower costs, and energy independence. After reviewing potential impacts of switching to biodiesel, Mr. Spraker took the Commission step-by-step through the relatively simple process of converting waste vegetable oil to biodiesel fuel suitable for powering existing vehicles at roughly \$1.00/gallon. Mr. Spraker encouraged the Commission to provide Wythe County and other localities in the Commonwealth with the political and financial resources to convert school buses from traditional diesel to biodiesel.

Mr. Stephen Walz, appointed by Governor Kaine to the position of Senior Advisor for Energy, provided the Commission with an overview of progress made towards implementing the recommendations of the Virginia Energy Plan. In energy efficiency, utilities have begun various pilots and programs to meet a goal set in 2007 to reduce the consumption of electricity by 10%. Additionally, the General Assembly passed legislation during the 2008 Session to decouple natural gas rates and remove the disincentive for utilities to reduce demand. Net metering legislation has furthermore resulted in the purchase of more than 400kW from consumer-producers. Mr. Walz stated that the Energy Star sales tax holiday will be expanded to WaterSense products this fall. In many ways, state and local governments are leading by example through standards for telework and energy management.

A number of improvements have been made to the energy supply and infrastructure system in the Commonwealth. The air emissions permit for the Virginia City Power Plant has progressed, as have various permits for new biodiesel plants and wind projects. New transmission lines have been added and more are planned. Construction for the HRX pipeline has begun and the capacity of the refinery at Yorktown should be increased. A plan has been put in place to burn switchgrass as a feedstock for fuel and heat at the Piedmont Geriatric Hospital. Mr. Walz also reviewed a number of events that serve to heighten awareness about energy across the Commonwealth. A number of commissions and research entities are addressing energy issues of the future including the Governor's Commission on Climate Change.

Senator Wampler questioned whether smart meters, which allow homeowners to manage their electricity consumption, will be used by homeowners in the Commonwealth. Mr. Martin noted that Dominion plans to distribute 200,000 smart meters as part of a move towards smart grid technology. Mr. Walz added that, in addition to educating consumers, it was critical to educate other industry participants such as installers, contractors, and retailers. Senator Wampler also asked Mr. Walz to elaborate on the role of nuclear energy

and questioned whether the Coal and Energy Commission or the executive branch has the independent authority to study the feasibility of uranium mining in the Commonwealth. Mr. Walz responded that the administration would work with the Coal and Energy Commission to determine whether a study might move forward with the agreement of all parties.

Mr. James Martin, a member of the Commission and Senior Vice President for Business Development and Generation Construction at Dominion Resources, began his discussion by pointing out that the future demand for electricity in Virginia requires an additional 4000 MW over the next nine years, which will be met by the development of additional generation and advancing conservation efforts. New generation projects will reflect a diversified strategy of infrastructure development including clean coal, advanced nuclear, natural gas, biomass, and transmission upgrades. Conservation efforts are predicted to save \$1 billion over the next 15 years. Dominion supports the goal that 12% of power supply will come from renewable resources by 2022 and expects to deploy 750 MW of wind power.

R. Daniel Carson, Jr. is vice president for Appalachian Power Company, a subsidiary of AEP that operates in Virginia, West Virginia and Tennessee. As of today, AEP owns 310 MW of wind capacity and has long-term power purchase agreements with wind producers totaling 467 MW. Hydroelectric capacity in Appalachian's region is almost 800 MW. As a result, AEP expects to meet the goal set by the General Assembly two years ago that 12% of power supply come from renewable resources by 2022. Additionally, AEP has asked that the State Corporation Commission approve a "green" tariff that allows retail customers to designate renewable energy for their monthly electricity needs.

Dr. Michael Karmis is a Professor in the Department of Mining and Minerals Engineering at Virginia Tech and he is the Director of the Virginia Center for Coal and Energy Research. Dr. Karmis gave the Commission an overview of work being done at the Center to advance carbon capture and sequestration. Initial tests of carbon capture technology will begin shortly, but a large volume test is needed. Dr. Karmis notes that Virginia is fortunate and to have geologic formations that are suitable to store carbon and that policy makers should view such formations as a natural resource. Large volume tests are essential to prove the value of these resources to investors. The Department of Energy will provide \$65 million towards the large volume tests, leaving an additional \$40 million in cost share commitment to be raised from other sources in the next few months. Dr. Karmis stressed the urgency and importance of identifying these funds for the project so that the Commonwealth will not lose its competitive advantage. Senator Wampler questioned the role of Virginia Tech to fund coal and energy research.

Mr. James Martin returned to update the Commission on the progress of the Virginia City Hybrid Energy Center and the possibility of adding a third nuclear reactor to the North Anna Power Station. The Air Pollution Control Board recently approved a permit that includes numerous emissions controls including limestone injection, flue gas scrubbers, low-temperature combustion, SNCR, fabric filter "baghouse," and activated carbon injection. The permit requires that the plant burn at least five percent biomass after three

years, an amount that will eventually increase 10 percent. Dominion will also convert the coal-burning plant at Bremo to natural gas. Dominion also has proposed a third unit at North Anna that would provide 1500 MW of new electricity—enough to power 375,000 homes. The reactor could potentially be in service as early as 2016. Dominion awaits contract negotiations with GE for the reactor and a Certificate of Public Convenience and Necessity from the State Corporation Commission.

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