Commission on Electric Utility Restructuring and
Coal and Energy Commission
September 19, 2007
Richmond, Virginia

The Commission on Electric Utility Restructuring and the Virginia Coal and Energy Commission met jointly to receive a presentation of the Virginia Energy Plan and to conduct other business relating to the Commonwealth's energy needs.

Virginia Energy Plan

On September 12, 2007, Governor Kaine released the Virginia Energy Plan, which was developed by the Department of Mines, Minerals and Energy in accordance with legislation enacted in 2006. The Energy Plan was drafted to establish a path that will provide reliable energy supplies at reasonable rates and increase the use of conservation and energy efficiency measures in the Commonwealth over a ten-year period. Stephen A. Walz, Senior Advisor to the Governor for Energy Policy, provided the Commissions' members with highlights of the Energy Plan.

The Energy Plan establishes the following four goals:

- Increase energy independence, with an emphasis on conservation and clean fuel technologies, by (i) reducing the rate of growth of energy use by 40 percent, resulting in a leveling of per-capita energy use per year, and (ii) increasing in-state energy production by 20 percent.
- Expand consumer energy education in order to overcome barriers to implementing energy-efficiency and conservation actions.
- Reduce 2025 baseline greenhouse gas emissions by 30 percent.
- Capitalize on economic development opportunities through business expansion and increased research and development in areas of nuclear technologies, alternate transportation fuels, coastal energy production, and carbon capture and storage.

Recommendations in the Energy Plan include:

- Expanding the Energy Star sales tax holiday.
- Addressing the need for stronger building energy codes.
- Creating investments by Virginia's electric utilities of $100 - $120 million annually to support energy-efficiency and conservation programs, which would be matched by $180 to $200 million annually from utility customers.
- Acknowledging the need to build new electric generation and transmission infrastructure to serve areas of growing electrical load.
- Requesting the federal Minerals Management Service to revise its procedures for drawing boundaries for the states' offshore jurisdictional areas.
- Expanding the Yorktown petroleum refinery.
- Acknowledging the need for a third natural gas pipeline crossing in Hampton Roads.

- Creating a Climate Change Commission, which would assess the level of Virginia's carbon emissions, assess what the consequences might be for Virginia if climate change is not addressed, and address what other actions Virginia should take to meet this goal.
- Requiring the reporting of greenhouse gas emissions using The Climate Registry protocol.
- Increasing investments in energy research and development by $10 million annually, with half of that amount from state resources.
- Establishing the Virginia Energy Research and Development Organization to set priorities for public energy research and development funding.
- Developing several energy technology business parks.
- Ensuring Virginia's energy infrastructure is secure from disasters.

The Commissions' members questioned whether implementation of the Plan's recommendations would require legislative action, and asked the administration to inform the legislature on the recommendations' effects on the state budget and the conduct of current state agency activities.

Need for Additional Electrical Generating Capacity

The Energy Plan notes that if the Commonwealth reduces its electricity usage by 14 % through energy efficiency and conservation by 2016, then, in order to maintain the current level of 29.4 % electricity imports, the state would still need to add an additional capacity of 1,220 MW. David Heacock, Dominion's Senior Vice President for Fossil & Hydro, told the Commissions that the rate of growth in Dominion's service area is expected to be 1.9 % during the next decade. Over this period, peak demand will increase by 4,000 MW by 2017. Some of the rapid demand growth rate was attributed to 45 data centers, which are between 15 and 25 times more energy intensive than an office building, built or planned for the utility's Northern Virginia service area.

Currently Dominion has the capacity to generate 17,750 MW. The actual peak demand in 2007 was 19,688 MW, producing a deficit that is met by importing electricity. Dominion has announced major capital investments to ensure reliable service, including conservation programs, renewable generation sources, the Virginia City Hybrid Energy Center, and a third nuclear unit at North Anna. Heacock concluded that the 2007 re-regulation legislation provides a solid foundation for investments in conservation and new generation.

The comments of R. Daniel Carson, Vice President of Appalachian Power (APCO), echoed many of the themes outlined by Dominion. The load growth utility, which also serves customers in West Virginia, is expected to grow at a rate of 1 % over the next decade. By 2012, at least 687 MW of new generation will be required to meet the resource obligations of American Electric Power (AEP). By 2017, 3,262 MW will be required.

Of the five AEP companies of which APCO is a member, APCO will have the largest reserve margin deficit by 2012. APCO's responsibility to add generating capacity though 2017 will total 1,863 MW. Of this amount, the company plans to build a 635 MW coal-fueled Integrated Gasification Combined Cycle plant in West Virginia by 2012 (for which an application was filed with the State Corporation Commission on July 16, 2007), and develop 72 MW of capacity from wind energy facilities between 2008 and 2011. The balance of 1,156 MW may be met through other capacity resources, including demand-side management, and intermediate and peaking generation units.

Jackson E. Reasor of Old Dominion Electric Cooperative provided the perspective of Virginia's electric cooperatives. Distribution cooperatives obtain some of their power through ODEC, which owns interests in the North Anna nuclear facility, the Clover coal plant, and gas peaking plants. However, over half of the power of distribution cooperatives is purchased on the wholesale market or through long-term contracts. Member cooperatives face unusually high growth over the next several years, attributed in part to the impact of several data centers on a small system.

To alleviate the need for new generation, cooperatives are looking at conservation measures, demand response programs, and new renewables technologies. However, even if these three measures are successful, they will meet only a small percentage of demand growth.

As a result, cooperatives are looking at other generation options, including the North Anna expansion. Reasor noted that funding for these projects will be critical. He urged that all options remain "on the table," even if the facilities may be less clean than others. Finally, he observed that all of the options will be expensive. Cooperatives have higher rates than the sate average now in part because they must buy power from the wholesale market, and this may be addressed by building additional generation capacity within the Commonwealth.

August Wallmeyer, representing a group of competitive, independent electricity generators, advised the Commissions that there is a definite and serious need for new sources of generating capacity in Virginia in the near future. He observed that independent generators invested more than $3.5 billion in generation facilities in Virginia in the 1980s and early 1990s, largely as a result of Dominion's use of competitive bidding to secure new generating capacity. He applauded the legislature's inclusion of provisions in the 2007 re-regulation bills that retained the competitive bidding process. He noted that independent generators bear the risk of project cost overruns, which can save ratepayers money. Competitive bidding will ensure that money spent on new generation and fuel over the next several decades will be spent wisely.

Virginia City Hybrid Energy Center

Jim Martin, Vice President of Technical Services at Dominion (and a member of the Coal and Energy Commission) provided an update on the status of the Wise County generation facility. Current plans call for 585 MW plant to have a hybrid design that utilizes circulating fluidized bed combustion, a clean coal technology that is capable of burning waste coal and wood wastes. The design will accommodate carbon capture and storage technologies when commercially available. The carbon sequestration technology envisions the injection of carbon dioxide from the plant into nearby coal seams not capable of being mined, thereby preventing the escape of this greenhouse gas into the atmosphere.

Another unique feature of the plant is an air cooled condenser technology, which will reduce overall water consumption. Applications for environmental permits and regulatory approvals have been, or soon will be, filed and Dominion anticipates approval of the SCC application and issuance of the air permit by April 2008. Failure to obtain permits by this time, Martin reported, will severely delay construction and power generation. If the approvals are granted by that date, commercial operations are expected to start in April 2012. In response to questions from Delegate Hogan regarding the cost of the technologies used in the plant, Martin observed that they are expected to add approximately 10 percent to the cost, plus additional costs resulting from a reduction in the plant's power output.

Voluntary Renewable Energy Programs

House Joint Resolution 686 from the 2007 Session, patroned by Delegate Plum, directs the Commission on Electric Utility Restructuring to evaluate the efficacy of a voluntary program to encourage the production of electricity from renewable resources. The study is to be completed prior to the 2008 Session. The resolution cites North Carolina's "NC GreenPower program" as an example of an initiative that may offer an efficient, voluntary way to encourage the use of electricity generated from renewable resources, and concludes that an analysis of whether the NC GreenPower initiative should be the model for a similar program in Virginia is timely.

The Commission on Electric Utility Restructuring unanimously adopted a motion by Delegate Plum, seconded by Delegate Scott, to establish a four-member subcommittee to examine the issues in HJR 686. The subcommittee, which will consist of Delegate Plum, Delegate Scott, Delegate Tata, and Senator Watkins, is authorized to meet twice and to report on its findings and recommendations to the full Commission prior to the 2008 Session.

Development of a Competitive Retail Market

Howard Spinner, Director of the SCC's Division of Economics and Finance, presented the SCC's annual report on the status of the development of a competitive retail market for electric service in Virginia as required by Virginia Code § 56-596. A copy of the report is available on the SCC's web site at http:/www.scc.virginia.gov/caseinfo/reports/2007_ceur.pdf.

Two issues involving PJM Interconnection, the regional system operator of which Virginia's major electric utilities are members, dominated Spinner's presentation. The first involved the ongoing dispute over the extent to which PJM is failing to provide the SCC with data. Matt Laroque of PJM responded that the issue involved the SCC's refusal to sign agreements that it requires to protect confidential and proprietary information. Senator Norment asked Spinner to provide additional information regarding PJM's refusal to provide information sought by the SCC.

The second issue involves the independence of PJM's market monitoring unit (MMU). In 2006, the SCC wrote that it could not represent with confidence that the PJM-administered wholesale market is, in fact, competitive and transparent. In April of this year, PJM Market Monitor Dr. Joe Bowring advised the Federal Energy Regulatory Commission that the MMU was not independent of PJM and that PJM management was inappropriately interfering with his duties as market monitor. The states that are members of PJM, including Virginia, are in litigation over a complaint that PJM violated its own tariff by interfering with the operations of PJM's MMU. Senator Norment indicated that he may establish a subcommittee to further examine issues relating to PJM.

Senator Thomas K. Norment, Chairman, Commission on Electric Utility Restructuring (Staff contact: Frank Munyan)
Delegate Terry G. Kilgore, Chairman, Virginia Coal and Energy Commission (Staff contact: Ellen Porter)