

# Virginia Commission on Energy and Environment

Tuesday, September 21, 2010, 1:00 p.m.  
Senate Room A, General Assembly Building  
Richmond, Virginia

## Summary

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### I. Welcome & Call to Order

Senator Whipple called the meeting to order and introduced the members. In addition to Senator Whipple, those present included Mr. Bolstad, Mr. Walz, Mr. Paylor, Delegate Ed Scott, Delegate Sickles, Delegate Morgan, Senator Petersen, Delegate Poindexter, Mr. Montgomery, and Mr. Wallmeyer. Presentations made to the Commission can be found on the Commission's website at <http://dls.state.va.us/GROUPS/energy/MEETINGS.HTM>.

### II. Virginia Energy Plan

Al Christopher of the Department of Mines, Minerals and Energy (DMME) presented the 2010 Virginia Energy Plan (the Plan), which was updated by DMME on July 1, 2010, and will be updated every four years following. Mr. Christopher presented figures showing energy consumption by sector, energy import information, energy production, current rates, and projected new capacity requirements based on annual peak demand growth. The full text of the plan is available online at <http://www.dmme.virginia.gov/DE/VAEnergyPlan/2010-VEP/VEP-2010.pdf>.

In response to Senator Whipple's question on how the Commonwealth competes with neighboring states, Mr. Christopher explained that Virginia has a low cost per kilowatt hour for industrial consumers and that he could review and provide information showing which other southern states have lower energy costs. In response to Senator Petersen's question on projected demand growth, Mr. Christopher clarified that the projected demand for 7,224 megawatts of new capacity takes into account existing demand-side management programs reducing consumption by 10 percent. Senator Whipple requested additional information on the basis for the estimated capacity at a future time. Mr. Wallmeyer expressed concern that current in-state generation projects would fall short of demands and requested that the Commission investigate further. In response to Mr. Wallmeyer's question about domestic production and consumption of natural gas, Mr. Christopher explained that between 30 and 40 percent of the natural gas used in Virginia is produced in the state. In response to Senator Whipple's question on data estimating the amount of offshore oil and gas near the Virginia coast, Mr. Walz clarified that the estimate is taken from a 2008 update on offshore reserves by the United States Geological Survey.

In reviewing goals of the Plan, Senator Whipple asked how Virginia will become the energy capital of the east coast when the state currently imports so much of its electricity and will need to produce more energy to meet growing demand. Mr. Christopher explained that there is great opportunity to increase Virginia's energy supply and that DMME has made several recommendations and a plan is being developed. Mr. Walz addressed Senator Whipple's question concerning the Universities Clean Energy Development and Economic Stimulus Foundation, which was created by 2010 legislation to serve as a central organization to attract investment in clean energy research and development. In response to questions from Delegate Scott on how to eliminate uncertainty and encourage private sector investment in the creation of

energy sources, Mr. Christopher referred to specific recommendations in the Plan to meet each goal.

In response to Delegate Morgan's question about the closure of the Yorktown Refinery, Mr. Walz explained that the closure resulted in part from an increase in the price of crude product and the decrease of price in finished product, but the refinery is able to and may return to operation if a profit can be made. Mr. Walz also answered Delegate Morgan's query regarding offshore resources outside of Virginia's territorial jurisdiction, explaining that many of the resources would be brought ashore, refined, and brought to the marketplace within Virginia.

Mr. Montgomery noted that Virginia is the second largest importer of trash in the United States and advocated the use of trash as a source of fuel for energy generation. Mr. Montgomery also stressed the importance of reducing energy demand. Senator Whipple remarked on the regional differences in energy consumption and also on the disproportionate amount of energy used by built areas and ways to reduce the energy consumption of buildings.

Mr. Wallmeyer calculated that Virginia would require between 15 and 18 power plants the size of Virginia Energy Center to eliminate the domestic energy capacity gap which results primarily from regulatory uncertainty at the federal level and the actions of the EPA.

Delegate Poindexter requested a greater emphasis be placed on the use of liquid fuel as an energy source.

Delegate Morgan commented on the importance of public education and regarding appliance use and consumer education. Dave Eichenlaub of the State Corporation Commission (SCC) explained that the consumer education program developed by the SCC has been required to narrow its focus due to significant budget cuts. Senator Petersen suggested that the program should focus on decision-makers such as building owners and managers.

### **III. Financing Clean Energy Programs**

Ben Taube, Executive Director of the Southeast Energy Efficiency Alliance (SEEA), presented on energy efficiency financing instruments and programs. Mr. Taube discussed barriers to energy efficiency improvements, the variety of financing instruments available, and lender concerns. In response to financing questions from Senator Whipple, Mr. Taube explained that each state has potential access to an allocation of low-interest federal bond money that can be used for energy efficiency programs. Mr. Walz clarified that \$80 million has been allocated for Virginia and that DMME is developing plans for using the funds, but only 30 percent of the funds could be made available for private use.

Generally, a financing district is created and property owners voluntarily sign up for a clean energy program. Following an audit, a property owner selects a certified contractor to perform the improvement and the property owner pays the contractor or the locality pays the contractor directly. Unlike a commercial building improvement loan which is paid over a period of three to five years, residential property owners pay the cost of the loan over a longer period of up to 20 years. Senator Petersen, who carried the legislation creating and amending the means to finance clean energy programs in Virginia, remarked that no Virginia localities have adopted the ordinance to put a clean energy financing program in place because energy efficiency loans are subordinate to an existing lien or deed of trust. Mr. Taube confirmed that this spring, Fannie Mae and Freddie Mac issued letters stating that they would not refinance properties with energy efficiency loans attached, but that several states were continuing to develop legislation to encourage residential energy efficiency gains. Mr. Taube and Mr. Walz discussed the efforts of

communities in Virginia to create a state-wide loan-loss reserve and the possibility of attracting private investment and using the federal bond money in connection with this reserve.

Mr. Taube offered to provide the Commission with the report from the Georgia Institute of Technology showing that efficiency gains could meet as much as 12 percent of the 14 percent of projected energy demand growth.

Cynthia Adams, Executive Director of the Local Energy Alliance Program (LEAP), presented to the Commission on LEAP, which was funded by a \$500,000 grant awarded by SEEA to the County of Albemarle and the City of Charlottesville to recognize a 20 to 40 percent energy efficiency gain per structure, reach 30 to 50 percent market penetration over a five- to seven- year performance period, create a self-sustaining approach, and establish a replicable model for other localities to institute energy efficiency loan programs. In response to questions from Delegate Morgan on energy retrofits, Ms. Adams provided examples of an energy retrofit and how a homeowner would work with LEAP to complete a retrofit from the initial audit process through final consumer education. LEAP has also partnered with other organizations across the state to aid in developing programs in other localities. In response to Senator Whipple's question, Ms. Adams explained that LEAP launched residential services in July 2010 and that 50 to 60 people had applied.

Ms. Adams has also worked with an informal coalition of representatives from localities including Charlottesville, Fairfax, Alexandria, and Arlington to draft a model ordinance to implement Va. Code § 15.2-958.3. Municipalities have questions on who would implement and oversee local programs and how to manage debt ratios and maintain a capital pool as well as concerns over the costs for setting up and the number of staff needed to support a program. Municipal legal offices raise concerns over the legality of issuing bonds to finance an energy efficiency program, the definition of private lenders under the statute, and language identifying who may fund programs as well as a specific mechanism for recovering on default loans. Senator Petersen clarified that representatives of the banking industry objected to language in an early version of SB 1212 that would have allowed local governments to collect repayments in the same manner as real estate taxes, and the language was removed before the bill's passage. Ms. Adams suggested adding language similar to legislation concerning services such as snow removal and weed removal. Localities have requested the creation of a statewide energy financing program for energy efficiency.

#### **IV. Cost of Renewable Energy: Virginia Rate Impact Study**

Al Weed, Chairman of Public Policy Virginia, presented the Virginia Rate Impact Study (Impact Study), a report developed by La Capra Associates for the Virginia Alliance for a Better Renewable Energy System and based on information from the Virginia Energy Plan. The Impact Study found that under the current voluntary Renewable Portfolio Standard (RPS), the plans filed by utilities did not create new renewable energy and had limited impact on the rates. The Impact Study predicts the impact of an increase in the mix of renewable energy sources as a result of a mandatory federal renewable energy standard (RES) of 25 percent in 2025. The Impact Study found that the model RES goals of 7,358 MW could be met by a portfolio relying on biomass (2,340 MW), offshore wind (2,000 MW), onshore wind (1,682 MW), solar power (1,143 MW), hydropower (166 MW), and landfill gas (27 MW). The Impact Study found that this mix would raise the cost to the ratepayer by one cent per kWh, compared to the cost of nuclear and carbon

capture sequestration by 1.6 cents per KWh. As an example of the job creation potential, the increased use of biomass will create 22 new construction jobs and 10 operating jobs per MW.

In response to questions from Mr. Walz about the assumed cost of nuclear power, solar power, and biomass, Mr. Weed offered to find the source of the statistic or to recalculate the cost if necessary. Biomass figures differ in part because the Impact Study uses an estimate based on a season of grass plantings as opposed to woody biomass.

Mr. Weed responded to Delegate Poindexter's earlier comment on the use of liquid fuel, remarking that the Virginia Energy Plan did not take the impact of combined heat and power systems (CHP) into effect. Mr. Weed advocates small-scale CHP biomass facilities of up to 20 MW constructed in a way to capture thermal energy. The combined CHP output from biomass energy production could displace 2.3 billion gallons of oil annually.

In response to Delegate Morgan's question on the presentation of the cost of coal, Mr. Weed explained that a spike in cost represented the anticipated future cost that included carbon capture technology.

Mr. Weed responded to Delegate Sickles' question about the importance of domestic energy production by listing benefits such as job creation, reliability, and price security. Current RPS law allows utilities to purchase renewable energy credits from any of the distant states creating renewable energy. Mr. Weed also addressed Mr. Wallmeyer's earlier concern over regulatory confusion by pointing out that under all proposed federal legislation, states with higher RES would be allowed to maintain those requirements.

Delegate Poindexter referenced a Massachusetts study showing that woody biomass has more emissions than coal and commented that Virginia could face unintended consequences of increased emissions and increased food prices if energy biomass is pursued aggressively. Mr. Weed explained that the carbon deficit related in part to the fact that Massachusetts has a 100-year biomass growth cycle, CHP neutralizes any carbon deficit, the plant is a 50 MW plant compared to smaller plants in Virginia, and that the issue is politically charged in the state. Mr. Weed also supported giving farmers the choice of growing financially viable crops. Mr. Weed agreed with Delegate Poindexter that the biomass energy jobs would not be as high paying as traditional jobs in coal and nuclear power plants, and pointed out that the development of technology and petroleum replacement fuels is a larger component.

In response to questions from Mr. Wallmeyer on study funding and credibility, Mr. Weed reported that the Energy Foundation of San Francisco awarded the grant that funded the study and that under the appropriate policy and price conditions, he found the increase in renewable energy from biomass, wind, and solar to be credible. Mr. Weed acknowledged that a penny per kilowatt hour is a 16 percent increase in the cost of electricity to the Virginia consumer and posited that the cost must be weighed against the investment in jobs.

Delegate Sickles asked if the projections were possible only under a mandatory RES, and Mr. Weed announced that he and others were developing a plan to approach those goals under the existing voluntary RPS.

## **V. Net Metering in Virginia**

Lawrence T. Oliver of the SCC presented on net metering in Virginia, explaining what net metering is and reviewing enabling legislation and amendments to it and the SCC process for adopting rules and rule amendments. The SCC has received notification that nearly 2.2 MW of installed facilities are net metered. There are currently 1.3 MW of primarily solar installations in Dominion Virginia Power's service territory.

## **VI. Dominion Update**

William L. Murray of Dominion Virginia Power (Dominion) provided an update from Dominion that included a description of the diverse generation mix, projected emissions reductions through 2015, projected increased demands for electricity, natural gas pricing, managing high energy demands over a record-setting summer, and the projected timeline for environmental regulatory requirements for utilities. Mr. Murray pointed out that Virginia is one of the PJM states where it is possible to develop and permit new generation and cited supply chain availability and air quality permitting as the largest factor in determining biomass facility placement, using the 80 MW facility in Pittsylvania County as an example. The presentation also included Dominion's renewable energy capacity, conservation and demand management programs, consumer education programs, and an update on traditional fuel sources such as nuclear and fossil fuels.

In response to Delegate Poindexter's questions on pilot programs and energy reduction using smart meters, Mr. Murray reported on the success of the smart meter program and the variety of options homeowners have to reduce energy waste and consumption.

## **VII. Public Comment and Adjournment**

After allowing for a period of public comment, and comments from Delegate Poindexter and Senator Whipple on the use and availability of coal in Virginia, the Commission adjourned.