Senator Whipple called to order the fourth meeting of the Commission on Energy and Environment ("Commission"). After brief introductions, the Commission began with the first speaker on the agenda.

Arlen Bolstad, State Corporation Commission. Mr. Bolstad provided the Commission with an overview of the report by the State Corporation Commission ("SCC") on the feasibility of a 10 percent reduction in electric energy consumption by 2022. The SCC received input from 180 people and adopted five self-directed subgroups: general issues; conservation and energy efficiency; demand response; financial considerations; and consumer education. SCC staff concluded that the 10 percent goal was indeed achievable and noted the potential programs set forth in the Virginia Energy Plan as a manner of achieving that goal. The SCC specifically asked for policy guidance in four key areas:

- To what, if any, extent should regulated retail electric prices in Virginia be used as a means to promote cost-effective conservation of energy through fair and effective demand side management, conservation, energy efficiency, and load management programs?
- Will participants pay for their own energy efficiency measures out of anticipated electric bill savings or will energy efficiency measures be funded out of a pot of money collected from the general body of ratepayers?
- Apart from pure peak reduction programs that must be administered by the system operator, will energy efficiency programs be administered by electric utilities, government agencies, commercial organizations, other types of third parties, or some combination of the entities listed here?
- To what, if any, extent should the Commission incorporate quantified environmental externalities—or any other externalities—into the regulatory process? (Mr. Bolstad noted that the real cost impacts of environmental externalities has gained special importance recently and cannot be cast aside in light of public awareness of global warming and the possibility of greenhouse gas regulation.)

The sole recommendation of the SCC report was that electric utilities provide information and data to determine the “cost-effectiveness” of demand-side management programs. Since the publication of the report in 2007, the SCC has been involved with applications
for several pilot programs managed by the utilities; renewable energy portfolio standards; the development of a consumer education plan; and integrated resource planning.

Senator Petersen asked about the efficiency goal of a 10% reduction in electricity consumption and whether the measurement of this goal was clear. Mr. Bolstad responded that there was confusion as to how the goal accounted for growth of population and that more clarity would be helpful.

Hugh Montgomery, who was also a member of one of the workgroups contributing to the SCC report, voiced his concern that electricity rates are not structured in a way to encourage conservation.

Senator Whipple asked for an update on the progress of the development of a consumer education plan. Mr. Bolstad responded that the plan borrows heavily from the fifth subgroup created for the production of the report.

Mr. Wallmeyer asked about the declining rate structures currently used and whether other models had been attempted. The SCC has asked utilities to examine rate design infrastructure and the inclusion of more intelligent price signals.

Neal Elliott; American Council for an Energy-Efficient Economy (ACEEE).
Neal Elliott presented the Commission with the ACEEE report "Energizing Virginia: Efficiency First." After reviewing the process used to develop the report, Elliott stressed that states should view electricity efficiency and conservation as the least-cost resource to meet our growing energy demands. Mr. Elliott also stressed the distinction between conservation and efficiency. Efficiency is a resource that can be purchased, for example by obtaining more modern appliances or weather-stripping. Conservation is a reflection of changed behavior to avoid the consumption of energy. The ACEEE report found that the Commonwealth could actually achieve a 19% energy reduction, equivalent to 28000GWh, and examined how that reduction could be achieved among sectors of the economy through various technological and regulatory policies. Mr. Elliott reinforced that electricity rates are rising now and will continue to rise in the future. The effect of aggressive conservation and efficiency program would simply be decline in the rate of increase. Another important benefit of an aggressive conservation and efficiency program would be the creation of jobs over the long-term, whereas expanded generation primarily creates jobs during the short-term construction phase.

Delegate Sickles asked whether there was a conflict between electric efficiency and conservation programs and renewable portfolio standards. Mr. Elliott responded that there was no conflict, especially when efficiency planning enters into the scenario to ensure renewable energy is affordable. For example, when energy needs are reduced, the savings can be invested in the implementation of renewable energy. This happens often when designing a building.

Senator Stuart asked about opportunities for cogeneration and the regulatory obstacles that might exist for cogeneration. Mr. Elliott explained that combined heat and power
("CHP") has historically been regulated by its multiple outputs--air emissions as a generator and as a public utility for the distribution of electricity. The more modern view would be to treat CHP according to its inputs, since it produces two types of energy, electric and thermal, with the same fuel. If CHP could be regulated on its single input rather than its multiple outputs, the administrative penalty could be lessened.

Dr. Hatcher asked about the calculation used to determine additional energy efficiency jobs and whether it reflected the avoided jobs from a dampened need to expand the energy generation sector. Mr. Elliott replied that this was taken into account.

**Jack Reasor; Old Dominion Electric Cooperative ("ODEC").** Mr. Reasor began by noting that ODEC has been working on this issue for more than 25 years and that their organization is unique because 95 percent of their users are residential. Delegate Nixon asked about market driven conservation efforts and whether Mr. Reasor agreed with rate design issues need to be addressed, perhaps according to a decoupling model like that implemented by the General Assembly for natural gas. Mr. Reasor responded that decoupling may not be the favored approach by industry and that what was meant by decoupling should be carefully examined. Mr. Reasor then referred to a pending rate case where base rates are increased to cover fixed costs; the quantity of usage is then passed through to the user.

**David Green; Dominion Resources.** David Green reviewed the numerous innovative pilot programs being explored by Dominion. Dr. Hatcher asked about the susceptibility of smart meters to lightning strikes. Mr. Green responded that 1/3 of meters already in use are solid state meters similar to that in smart meters and that no problems have been reported.

Delegate Poindexter asked about the interface of the smart meter. Mr. Green responded that the meter can interact generally with the thermostat or specifically to separate appliances—various technologies are being explored in the pilot programs.

Mr. Wallmeyer asked if information from the pilot programs would be available soon enough to impact the upcoming round of integrated resource planning. Mr. Green noted that Dominion would file its IRP within 90 days.

Senator Whipple inquired about the time frame to deploy advanced meter infrastructure. Mr. Green responded that it would be phased in over time. Already tests are being done on two circuits in the Richmond area. The next step would be full test at another office such as Charlottesville.

Senator Petersen asked if there are any auditors reviewed the success of the pilot programs. Green commented that Dominion has internal auditors and employs consultants, but that there were no external auditors specifically used to do so.

**Ron Jefferson; AEP Appalachian Power.** Mr. Jefferson discussed the numerous approaches AEP Appalachian Power takes to helping customers conserve electricity and
demonstrated the tools on AEP's website to allow customers to calculate energy savings in their home.

Mr. Wallmeyer asked if AEP would be able to meet the current efficiency goal in the Commonwealth to reduce consumption by 10%. Mr. Jefferson responded that he was confident that AEP would be able to meet this goal through various programs.

Senator Whipple asked how AEP had achieved such penetration with compact fluorescents for lighting. Mr. Jefferson said that consumers were educated by product packaging, media, invoice inserts, and other utility promotions.

**Bill Carden; Potomac Supply Corporation.** Senator Stuart introduced his constituent Bill Carden, president of Potomac Supply Corporation. Mr. Carden provided an engaging review of the importance of forestry and lumber products industries to Virginia. Although these industries are experiencing economic difficulties, there is an untapped potential to adapt wood products for use as energy feedstocks.

**Public Comment.** Senator Stuart made a motion to allow public comment prior to the Commission's discussion of other business.

Ms. Sara Rispin spoke on behalf of the Southern Environmental Law Center in support of the ACEEE report and emphasized that efficiency is the best way to meet growing energy needs. Ms. Rispin also lauded the work of the governor's Commission on Climate Change and its recent endorsement of 101 recommendations, many of them related to the mitigation of energy demands.

Mr. Glen Besa spoke on behalf of the Sierra Club and asked that the Commission carefully look at all options and incentivizing Virginians and utilities to make the right choices for the environment.

Mr. Tom Cormons spoke on behalf of Appalachian Voices and sounded his groups favor of looking to energy efficiency as a resource to avoid building new generation and consuming more coal, both of which contribute to destructive environmental externalities.

Ms. Ivy Main spoke on renewable energy options for the Sierra Club. She noted that coal can no longer be viewed as the low cost fuel option in light of strengthening prices. She asked that a new scenario be adopted to fully acknowledge the potential of offshore wind to produce electricity.

**Commission Discussion.** Senator Petersen discussed the importance of biofuels and urged that the General Assembly locate dedicated funding to catalyze the progression of second generation cellulosic biofuels.
Senator Whipple noted that we could strengthen the market for biofuels by requiring that diesel fuel sold in the Commonwealth include two percent biodiesel by volume. Any legislation should include a delayed effective date. Mr. Montgomery expressed concern that legislation should not be too specific but should support policy of including any of a number of synthetic fuels.

Delegate Poindexter noted the importance of using forest debris for a renewable energy feedstock. Mr. Walz commented that a significant obstacle to using forest debris is the infrastructure needed to transport the feedstock from its source to a point for processing.

Dr. Schulz discussed her constituent's desire for support of solar energy through a feed in tariff and the establishment of a solar center at a major university. The Governor's office is already considering feed in tariffs and a solar center at DMME has been in place for many years without funding.

The Commission reviewed correspondence from the Fairfax County Board of Supervisors requesting tax credits for residential solar installation and from the Virginia Trucking Association recommending a number of anti-idling provisions. Several of these recommendations are also already being discussed by the administration.

Senator Petersen said he would like to introduce legislation to rewrite the current goal of reducing electric consumption by 10 percent.

The Commission discussed the role of energy audits and energy managers in state government. The Governor has adopted an aggressive plan to reduce energy use by state agencies by executive order.

Senator Whipple summarized the recommendations of the Commission: (i) identify dedicated funding for biofuels production; (ii) require that diesel fuel include a minimum of two percent synthetic fuel; and (iii) clarify the existing goal to reduce electricity consumption by 10 percent by 2022.