

## **Energy and Sustainability Committee Minutes**

**April 28, 2008**

**2:00 – 3:00 p.m.**

**210 Burruss Hall**

**Present:** Sherwood Wilson, Melinda West for Dwight Shelton, Michael Coleman, Scott Hurst, Kim Briele, Bruce Ferguson, Ben Myers, Denny Cochrane, Rob Lowe, Richard Hirsh for Jack Lesko, Sean McGinnis, Annie Pearce, Tom Tucker, Brian Perkins, Natalya Hallanan, Diliana Hirt

**Guests:** Bryce Carter, Angie De Soto, Lucinda Jennings, Rick Johnson, Sara Murrill, Erik Olsen, Tamim Younos

**Absent:** Mike Cutlip, Lauren Ashley Hamm, Sue Ott Rowlands, Lisa Wilkes

### **1. Called Meeting to Order**

Sherwood Wilson called the meeting to order. He welcomed the guests and invited them to attend future meetings.

### **2. Adoption of Agenda**

The Committee approved the agenda as proposed.

### **3. Approval of March 24, 2008 Minutes**

A motion was made and seconded to approve the March 24, 2008 minutes with attachments.

### **4. Old Business**

- 1) Earth Week Feedback: Natalya Hallanan, President of the Environmental Coalition, was pleased to report that Earth Week 2008 was very successful. The planning and implementation went very well, and the attendance was amazing. This six-day event included the participation of many student organizations, over 40 businesses, and several featured speakers. She introduced guest Angie De Soto who provided an update on her activities with the student group “Green Team.” Angie organized this educational program to teach students what they can do to live a more sustainable lifestyle. To date, over 400 students have received this training.
- 2) Report from Sub-Committee re: Policy 5505 Review: Annie Pearce, chair of the sub-committee to review and update Policy 5505, *Campus Energy and Water Policy*, discussed their progress. Upon a review of Policy 1000, *Policy on Policies*, it was discovered that many of the items in the current Policy 5505 were incorrectly positioned. Some of the current items in paragraph 2 “Policy”

belonged in paragraph 3 “Procedures” and vice versa. Upon completion of this realignment, internal administrative changes were made to incorporate recent changes in job titles, activity titles, executive order numbers, etc. Once the Sub-Committee members are satisfied with their latest revision, it will be forwarded to the full Committee for review and comments. As a separate but related matter, the Sub-Committee is exploring broadening the scope beyond just energy and water, and will share their views at a future meeting.

## **5. New Business**

- 1) Sustainability Update from the Director of Housing and Dining Services: Rick Johnson distributed a handout (Attachment A) and talked about the Housing and Dining Services sustainability programs. The Committee was extremely impressed with the numerous initiatives taken, ongoing, or being researched. Rick expressed his interests in becoming a member of the Energy and Sustainability Committee. The Committee acknowledged their support for Rick to become a member. In the meantime, Sherwood Wilson encouraged Rick to come or send a representative regularly to the Energy and Sustainability Committee meetings.
- 2) Virginia Tech Climate Commitment: In a letter to the members of the Environmental Coalition dated April 23, 2008, President Steger announced he has decided not to sign the generic Presidents Climate Commitment and he provided his rationale for making that decision (Attachment B). He further stated that he “will ask the Energy and Sustainability Committee to develop a Virginia Tech Climate Commitment that is specific to our university and that outlines clear, measureable goals that we can realistically achieve.” In a Memorandum to the Members of the Energy and Sustainability Committee dated April 25, 2008, President Steger charged the committee and provided details of this task (Attachment C). Sherwood Wilson recommended forming a sub-committee and asked Professor John Randolph to be the chair. The committee unanimously supported that recommendation and pledged full support to Professor Randolph. He agreed to become the sub-committee chair. Due to the limited time, and recognizing the need to begin work this summer, it was agreed to have a special meeting on Monday, May 5 for the purpose of selecting sub-committee members, establishing priorities and milestones, and identifying resource requirements.
- 3) Committee Goals and Objectives for FY 2008-09: There was not enough time to discuss this item. Denny Cochrane asked the members to send him their goals and objectives by email.

## **6. Future Meeting**

The next meeting will be a special meeting May 5 at 1:30 p.m. in Room 210, Burruss Hall.

## **7. Adjourn**

It was moved and seconded to adjourn.

## HOUSING AND DINING SERVICES SUSTAINABILITY PROGRAMS

- Housing and Dining Services manages 50 of the 100 buildings on campus (50%).
- Housing and Dining Services occupies 2.5 million gr. sq. ft. of space, 26% of the University total of 9.7 million gr. sq. ft.

### **Housing: Current**

- Renovations of AJ are being designed so that the building can be certified at the Silver level according to the LEED green building rating system.
- Dual flush toilet system is being tested in AJ and will be part of the AJ renovation
- Increased our recycling of fluorescent lamps (we were doing partial recycling before, but have now stepped up the program to all lamps including compact and tube types – these are placed in a tube crusher drum, which is sent to recycle when full.
- Toilet paper at 10% recycled content. Roll towels at 100% recycled content. Black trashcan liners are 60% recycled content (clear liners are virgin plastic).
- All shower heads were replaced from 3gpm to 2gpm (pressure compensating/adjustable shower heads) as part of the Water Management Inc. recommendations in their report reducing water flow by 33%.
- Support Recyclemania.
- Recycling bin in every residence hall room (had them for years).
- No VOC (volatile organic compounds) paint.
- Switch common area light bulbs to T8 light fixtures, as able, within renovation and funding availability
- Replacement of stand-alone battery operated smoke detectors from 9v to 10-year lithium types.
- Mattresses refurbished instead of being totally replaced on an approximate five-year cycle.
- Shower machines are used to clean showers – allowing for bulk/mix-at-site chemical use and more efficiency. The shower cleaner, Green Earth, is a green product.
- Cardboard recycling sites during fall check-in operations.
- Participation and advertisement of the Y-Toss program at the end of the year to reduce amount discarded by students.
- Support the paper recycling program in several halls and worked with groups to add recycling bins in the mailroom areas for junk mail.
- Rooms are limited to one microwave (<1000watts) and a small refrigerator (<4.5 cubic feet)
- Assignments staff changed over to mostly e-contracting and dispersal of materials, including assignment notices. Efforts are under way to reduce print-and-file operations in favor of electronic repositories of records arriving by e-mail.
- New buildings have thermal glass windows helping to reduce energy consumption. Most of the residence halls have received new windows in the past 15 years.

- White roof systems – roofing system recently replaced on AJ is of the white membrane type which is considered a cool-roof system reducing the cooling needs of the building compared to rubber/tar/gravel systems.
- 12v batteries and above are recycled when replaced.
- Bulk chemical containers for housekeeping are made of recycled material. Currently not being recycled due to foaming and rinsing needs, but are being researched for easier recycling.
- New lounge furniture will have sustainable fabric.
- Sustainable carpet in Slusher, Vawter, Miles, Newman, Lee, Pritchard, Barringer, and O'Shaughnessy.
- Discard metal and wood scraps in the hoppers at Physical Plant recycling.

### **Housing: Future**

- In the process of researching and changing to some new chemicals that are green, but are not yet using them.
- Reviewing scope and scale of remaining 9v battery use and feasibility of recycling 9v batteries as well.
- RHF will push Recyclemania earlier.
- Educate students on sustainability during Orientation – Green Team presentation.
- Encourage on-campus residents to use recycle bins.
- Encourage on-campus residents to turn lights off and unplug appliances that are not being used for an extended period of time – use of sticker on each switch.
- Encourage on-campus residents not to take long showers – looking at a timer on showers.
- Invite the Green Team to sessions in the residence halls.
- Look at potentially doing collaborative program with Student Government Association (SGA) that will focus on cleaning the campus community, which ends the day with a band.
- Placing “sustainable” sheets at RHF booth at Orientation.
- Get information out without using paper all the time.

### **Dining: Current**

- Replacing Styrofoam with more green alternatives, if a composting site is developed. Also, looking into food waste reduction through encouragement of sit-down or Styrofoam on to-go orders only.
- Cardboard recycling has been part of Dining operations for years (most of their materials come in cardboard boxing) and is a significant percentage of the University total recycling effort.
- Recycles used oil.
- Purchases 8-15% of food “locally.”
- Recycles plastic and aluminum cans inside dining facilities.

**Dining: Future**

- Trayless at D2 and other locations – save food waste 30%.
- Exploring composting with the University and a firm in Riner, VA.
- Plan to use sugar/corn biodegradable/compostable food containers (\$500,000 extra cost per year).
- Plan to compost all food scraps and bio to-go containers (sugar/corn based).
- Hire a sustainability coordinator.
- Convert used oil to biodiesel.
- Purchase future vehicles that use biodiesel.
- Working with prime vendor to identify local sources of food – VA, NC, MD, WV, and increase local purchases.
- Start an herb garden in front of D2.
- Eventually start a student garden on University land that will supply vegetables to Dining.

April 23, 2008

Dear Members of the Environmental Coalition,

I regret that I could not be with you for the Green Event yesterday, but having had the opportunity to meet you in December, I was confident that the event was exceedingly well organized and would be a success. I am also grateful to Denny Cochrane for representing me.

The presentation that you made in December was highly impressive, and I have considered your points carefully. As I pledged to you at that time, if I make a promise, I intend to keep it. I do not make empty promises. That is why I asked our Vice President for Administrative Services, Dr. Sherwood Wilson, to examine the cost implications before I would make a decision.

Two particular tenets of the President's Climate deserve close examination. First is the commitment to carbon neutrality, which cannot be taken lightly. I have been advised that it is not feasible for Virginia Tech to accomplish this using current technology without purchasing carbon credits on the open market to offset our carbon production. Based on the university's carbon footprint of over 280,000 tons of CO<sub>2</sub> annually and the current market price per carbon credit, the additional cost to achieve climate neutrality could approach \$2 million annually. This assumes a 25 percent reduction in carbon emissions through engineering and behavior modifications.

Second is the requirement to purchase or produce at least 15 percent of our electricity from renewable sources within one year. Although it is technically possible to purchase 15 percent of the university's electricity from renewable resources within one year, the premium price on green power would exceed \$1 million annually.

I must consider these costs in the context of the university's strategic plan and all of the *critical* initiatives that are under way or planned to support that plan, coupled with the unplanned expenditures—and the overall impact on tuition. The unplanned expenditures include nearly \$10 million that the university has expended to deal with the tragedy of April 16, 2007, and to begin to implement the recommendations contained in the Governor's Panel's Report as well as our three internal studies. These expenditures will grow significantly as we continue with the implementation. Moreover, state support for higher education in Virginia in general and for Virginia Tech in particular continues to decline. Total state funding for Virginia Tech is less today than seven years ago, even though enrollment is higher. Adjusted for inflation, this represents a loss of 23 percent of buying power. In 2000-01, the state provided 59 percent of the cost of education at Virginia Tech; this year, that support is only 41 percent. By the state's own calculation, Virginia Tech is underfunded (base budget adequacy) by more than \$64 million annually.

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Taking all of these factors into consideration, my decision is not to sign the generic President's Climate Commitment. Rather, I will ask the university's Committee on Energy and Sustainability that was created last year to assume the task of developing a Virginia Tech Climate Commitment that is specific to our university and that outlines clear, measurable goals that we can realistically achieve. That Committee will work closely with Dr. Wilson and his staff. I would expect to be briefed on their work along the way, and the plan would be vetted through the university governance structure—from the committee, on to the Commission on University Support, and then to University Council. The result should then be a commitment tailored to Virginia Tech that I can sign with high confidence that we will be able to fulfill it.

Needless to say, the university is not going to wait for the Virginia Tech Climate Commitment to be finalized before we take any action. We will continue with the initiatives under way and launch new ones.

For example, to the extent possible, we are ensuring that University facilities are designed, constructed, renovated, operated, and maintained in accordance with the latest energy/water efficiency standards and in a manner consistent with the US Green Building Council's LEED™ Building Rating Systems. We also recently hired a new associate vice president for facilities. Among his main responsibilities will be to coordinate our energy efficiency efforts.

Some of the more recent initiatives include:

- In spring of 2007 Virginia Tech converted 13 acres of campus from regularly maintained turf grass to low maintenance native grass meadows and wildflowers.
- Several other new projects incorporate sustainable features that are becoming standard at Virginia Tech. Energy efficiency has been increased with improved lighting and third party commissioning of HVAC systems.
- Virginia Tech has secured \$17.25 million in state funding in support of a \$28.75 million capital project established to carry out upgrades to the steam utility distribution system and Central Steam Plant. This project will provide more than \$1 million annually in fuel savings, including the new ability to co-generate electricity during the summer months. The project will also reduce emissions by 10 tons annually.
- In addition, we are looking at some new educational endeavors to help prepare K-12 students and community college students to be more aware of energy conservation and to be a part of a new "green-workforce" that we will need in the future.
- Virginia Tech is also pleased to be one of the founding partners, along with Hannon Armstrong and Pepco Energy Services, in the Energy Efficiency Partnership of Greater Washington established last October, and to play an integral role in the greening of this important U.S. metropolitan area. Virginia Tech and our partners are launching a large-

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scale building retro-fitting project in the Washington metropolitan area. Pepco Energy Services will carry out energy audits, supply materials, and perform building retrofits as well as guarantee the energy savings of the retrofit projects. Hannon Armstrong, an energy efficiency financier, has made a very substantial commitment to finance the retrofitting at no capital cost to building owners. Virginia Tech has entered into this partnership because it fits perfectly with our core missions of research, learning and outreach. In today's interconnected global environment, the problems of one city, nation or region are fast becoming the problems of all. Virginia Tech, as a leading research institution, has a responsibility to show leadership in addressing large-scale problems. And cross-sector partnerships with government, business and civil society are an important avenue in addressing these challenges.

- Today, I spoke at the "20-Now" Financing Green Buildings Action Forum in Washington, DC sponsored by Meridian International Center in partnership with the Energy Efficiency Partnership of Greater Washington (of which VT is a founding member), the World Business Council for Sustainable Development, and United Technologies. The event was designed to promote global and national best practices in financing energy efficiency projects to achieve zero net emission buildings and had an audience of more than one hundred regional and national building owners, developers, and financial institutions that expressed an interest in and commitment to energy efficiency in their work.
- On June 17, 2008, Virginia Tech will host Governor Kaine's Commission on Climate Change. The Virginia Energy Plan released last September set a goal for the state to reduce greenhouse gas emissions by 30 percent by 2025. We are looking forward to what we can learn from the Commission's report, due to be released in December.

The drive towards sustainability has strong support throughout the university's senior leadership; the deans and many of the vice presidents have been champions of this cause. And, I commend the Environmental Coalition for being a champion of environmental issues among the students; I am well aware that the desire for Virginia Tech to be a leader in terms of sustainability permeates the entire student body, as well as the faculty and staff. I look forward to the work of the Energy and Sustainability Committee and to signing a sustainability commitment tailored to Virginia Tech with realistic goals that will produce meaningful and enduring results.

Sincerely,



Charles W. Steger  
President

cc: University Council  
Commission on University Support  
Committee on Energy and Sustainability

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## Memorandum

**TO:** Members of the University Committee on Energy and Sustainability

**FROM:** Charles W. Steger 

**DATE:** April 25, 2008

**SUBJECT:** Drafting the Virginia Tech Climate Commitment

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In the attached letter that I sent to the members of the Environmental Coalition on April 23, I laid out the rationale for my determination that Virginia Tech would be better served by developing a sustainability plan that is specific to Virginia Tech than by my signing the generic President's Climate Commitment. Given the long-term impact that the Virginia Tech Climate Commitment will have on the policies, operations, and budget of the university, securing the support of the university community through the governance system is critical to its successful implementation.

Accordingly, I am assigning to the Committee on Energy and Sustainability the important responsibility of developing a draft Virginia Tech Climate Commitment. This plan should be developed in close collaboration with and under the guidance of the Vice President for Administrative Services, Dr. Sherwood Wilson, and his staff. The plan should outline clear, measurable, and realistic goals. I would like to be briefed by the Committee chair at regular intervals while the plan is being developed. I am requesting that the Committee complete the draft plan by the end of the Fall Semester 2008, and submit a copy to the Commission on University Support and to me.

The next step would be for the Commission on University Support to review and approve the plan in resolution format, and then to send the resolution forward to University Council for action. As you know, University Council acts in an advisory capacity to the President. The goal is for University Council to act on the resolution prior to the end of the Spring Semester 2009.

Thank you in advance for the tremendous contribution you will be making to the university and future generations of students, faculty, and staff through this important work.

Enclosure

cc: Commission on University Support