

## **Energy and Sustainability Committee Minutes**

**March 24, 2008**

**2:00 – 3:00 p.m.**

**210 Burruss Hall**

**Present:** Sherwood Wilson, Melinda West for Dwight Shelton, Michael Coleman, Scott Hurst, Kim Briele, Keith Boyd for Ben Myers, Denny Cochrane, Rob Lowe, Richard Hirsh for Jack Lesko, Sean McGinnis, Annie Pearce, Tom Tucker, Mike Cutlip, Debra Stoudt for Sue Ott Rowlands, Brian Perkins, Lauren Ashley Hamm, Natalya Hallanan, and Bryce Carter for Diliana Hirt

**Guests:** Larry Bechtel, Angie De Sota, Sara Murrill, Moriah O'Brien, Damian Pitt

**Absent:** Bruce Ferguson, Lisa Wilkes

### **1. Adoption of Agenda**

Sherwood Wilson recommended the agenda be accepted as proposed. The Committee concurred.

### **2. Approval of February 25, 2008 Minutes**

A motion was made and seconded to approve the February 25, 2008 minutes with attachments.

### **3. Old Business**

- a) Sherwood Wilson introduced the draft resolution for appointment of the Energy and Sustainability Coordinator as an ex officio member of the Energy and Sustainability Committee (Attachment A). The resolution will require approval by the Committee, the Commission on University Support, and the University Council. A motion to approve the draft resolution was made, seconded, and unanimously approved. The resolution will be forwarded to the Commission on University Support for action at their upcoming meeting on April 17.
- b) Sherwood Wilson informed the Committee that he talked with President Steger about the President's Climate Commitment. Given the many other priorities he is facing, the President hasn't been able to review the Commitment. Sherwood reemphasized that the President will only sign the document when he is confident the university can commit to it. If he decides not to sign, the Committee will prepare a Virginia Tech Climate Commitment.
- c) Annie Pearce, Chair of the Sub-Committee to review and update Policy 5505: Campus Energy and Water Policy, provided highlights of their initial meeting held earlier on this date. The additional Sub-Committee members include Mike Coleman, Scott Hurst, Mike Cutlip, Brian Perkins, Natalya Hallanan, and Barry

- Key (Associate Director of Budget Operations). The Sub-Committee will focus on two areas. First, it will review and update Policy 5505 to ensure it is in compliance with Governor Kaine's Executive Order 48 (2007), "Energy and Efficiency in State Government." Second, the Sub-Committee will present a proposal to the Committee to broaden the scope beyond just energy and water to include all components of sustainability. The proposal will be provided at the next Committee meeting.
- d) Denny Cochran provided an update on the paper recycling program. To date, seven of the eight colleges have fully operational programs. The eighth college will be fully operational by the end of this month. Larry Bechtel, the Virginia Tech Recycling Coordinator, reports a 30% increase in paper recycling from one year ago, and an overall increase in the recycling rate from 22% in FY 2006-07 to 34% FY 2007-08. In the first five weeks of the 2008 Recyclemania Competition, there has been a 45% increase in the totals from the previous year. There was discussion on the need to educate the university community on the disposal of Florissant light bulbs and e-waste.
  - e) Natalya Hallanan distributed a tentative schedule for Earth Week 2008 (Attachment B). The Environmental Coalition has the lead for planning this event which includes a variety of activities for the period April 20 through April 25. Tuesday, April 22 will include an Earth Day Fair on the Drillfield.

#### **4. New Business**

- a) The members received a copy of the Annual Report on University Sustainability Initiatives to be presented to the Board of Visitors (BOV) at their upcoming meeting on March 31 (Attachment C). The report addresses four required topics to include: energy usage, air emissions, stormwater management, and recycling. Completed, in-progress, and planned sustainability projects and initiatives are listed. New this year is a section that highlights significant student activities.
- b) Virginia Tech Professor John Randolph gave an outstanding and informative presentation titled "Blacksburg Energy and Greenhouse Gas (GHG) Emissions Inventory." The purpose of this inventory is to provide baseline data for future planning efforts to reduce energy use and town-wide GHG emissions. The report has been prepared for presentation to the Virginia Tech Energy and Sustainability Committee, the Town of Blacksburg Mayor's Task Force on Sustainability and Climate Change, and the Sustainable Blacksburg Steering Committee. Accompanying Professor Randolph was PhD candidate, Damian Pitt, who represented over 50 students who participated in the inventory. Data was gathered for the years 2000 to 2006, and trends were derived to project energy and emissions to 2020. Discussion centered on potential next steps. Sherwood Wilson provided laudatory comments to Professor Randolph and his students for a truly remarkable report and a job well done.
- c) Denny Cochran announced that "Sustainability Week 2007," was recently selected for the Governor's Environmental Excellence Award in the program category, and the award will be presented at the Environment Virginia 2008 Symposium at VMI on April 2. The Town of Blacksburg, the local citizens group

Sustainable Blacksburg, and Virginia Tech formed a “green partnership” to promote sustainability awareness and education using over 30 activities, speakers, and tours.

- d) Sherwood Wilson was extremely impressed with a presentation from Professor Jack Lesko which highlighted Virginia Tech’s academic energy initiatives, and he strongly recommended this to the Committee at a future meeting.

## **5. Future Meeting**

The next meeting will be April 28 at 2:00 p.m. in Room 210, Burruss Hall. Any agenda items should be emailed to Denny Cochrane at [denniscc@vt.edu](mailto:denniscc@vt.edu) .

## **6. Adjourn**

It was moved and seconded to adjourn.

**DRAFT**

**Commission on University Support  
Resolution 2007-08B  
Resolution for Appointment of the Energy and Sustainability Coordinator  
as an Ex Officio Member of the Energy and Sustainability Committee**

Approved by the Commission on University Support:	TBD
First Reading at University Council:	TBD
Approved by University Council:	TBD
Approved by the President:	TBD
Effective:	Immediately upon approval

**WHEREAS**, the Energy and Sustainability Committee is a standing committee that has the responsibility to review and provide advice to the University Administration on broad policy issues relating to the university's energy supply and use, and resource conservation; and

**WHEREAS**, the Vice President for Administrative Services has created a new faculty position with the title Energy and Sustainability Coordinator within the Office of the Associate Vice President for Facilities; and

**WHEREAS**, the Vice President for Administrative Services serves as chair of the Energy and Sustainability Committee; and

**WHEREAS**, the Energy and Sustainability Committee has four representatives from Virginia Tech Facilities selected by the Vice President for Administrative Services; and

**WHEREAS**, the Vice President for Administrative Services has selected the Energy and Sustainability Coordinator to serve as one of his representatives; and

**WHEREAS**, it is the intent of the Vice President for Administrative Services for the Energy and Sustainability Coordinator to coordinate all operational activities of the Energy and Sustainability Committee to include providing primary administrative support;

**THEREFORE BE IT RESOLVED** that the Energy and Sustainability Coordinator be appointed as an ex officio member of the Energy and Sustainability Committee.

## **Earth Week 2008 Tentative Schedule**

Sunday April 20<sup>th</sup>

- 1:00 pm: Stroubles Creek clean up with VT SEEDS (Seek Education, Explore, and DiScover) and Blacksburg Girl Scouts

Monday, April 21<sup>st</sup>

- 1:00 pm- Speaker: Marilyn Brown, “The Emergence of Energy Efficiency as the Fifth Fuel”
- Evening- Speaker: Glen Bessa, Sierra Club, “Clean Energy Futures”
- 7:00pm-10:00pm- Green Fashion Show with Emerging Green Builders

Tuesday, April 22<sup>nd</sup>

- All day: Earth Day Fair on the drillfield
- 4:00pm- Speaker: Misty Gregg, “Pollution in the Household”
- 5:00pm- Green Effect Event
- 7:30- Speaker: Frank Harmon, “Green Architecture”

Wednesday, April 23<sup>rd</sup>

- Afternoon- Student Organization Field day
  - Participate in “Green” events
- Afternoon- Duckpond cleanup with Alpha Phi Omega
- 7:00pm- Speaker: Josh Tulkin, “Youth Climate Movement”

Thursday, April 24<sup>th</sup>

- Mountain Top Removal Day with Mountain Justice
- 7:00pm- Speaker: Larry Gibson, “Mountain Top Removal”

Friday, April 25<sup>th</sup>

- All day- Tree Planting on drillfield- 12 trees, 50+ people
- Afternoon/Evening- Speaker: Denny Cochrane, “Virginia Tech Sustainability”

## ANNUAL REPORT ON UNIVERSITY SUSTAINABILITY INITIATIVES

Virginia Tech is committed to sustainability. During the past year the university has continued to implement measures to improve energy efficiency and to make the university community more sustainable. The Energy and Sustainability Coordinator faculty position was created to serve as a liaison between the administration, students, faculty, staff, local community, and private industry. The university has established the Energy and Sustainability Committee with the mission of reviewing and providing advice to university administration on broad policy issues relating to energy consumption and conservation. To promote sustainability awareness and education, and to support positive actions with practical results, Virginia Tech, the Town of Blacksburg, and the local citizens group, Sustainable Blacksburg, formed a “green partnership” and sponsored Sustainability Week 2007. This first, week-long event, which was held in late October, included over 30 activities, speakers, and tours. The university assesses its progress towards creating a more sustainable campus by using baseline data to measure our status in the following four areas: energy usage, air emissions, stormwater management, and recycling.

**Energy Usage:** On April 5, 2007, Governor Timothy M. Kaine signed Executive Order 48 (2007), “Energy Efficiency in State Government.” Since Virginia Tech had previously achieved the 10% energy savings goal established for 2006 in Executive Order 54 (2003), Executive Order 48 requires the university to “reduce costs of non-renewable energy purchases by an additional 15% of fiscal year 2006 expenditures by fiscal year 2010.” A plan is in place to meet that goal. For fiscal year 2006, the reported energy costs were \$15,400,000 (baseline). The Executive Order 48 goal is \$2,310,000. For fiscal year 2007-2008, there is a series of ongoing energy projects, which will yield a non-renewable energy cost avoidance of \$242,962. For fiscal years 2009 and 2010, a series of additional energy projects have been identified to include the addition of a new steam condenser in the Power Plant, which will provide an estimated non-renewable energy cost avoidance of \$2,068,790.

**Air Emissions:** The university recently completed construction on a \$5.85 million Boiler Pollution Controls project, which added a bag-house and an acid gas scrubber to Boiler #7 (older coal fired boiler). These controls are expected to reduce particulate emissions from the central steam plant from 42 tons per year to 2 tons per year as well as reduce sulfur dioxide emissions from 460 tons per year to 110 tons per year. Boiler #10 is currently being retrofitted with new low NOx burners and air controls, which will reduce nitrogen oxide emissions and improve efficiency. Boilers #8 and #9 will be retrofitted in a like manner in 2008.

**Stormwater Management:** The university operates under a Small Municipal Separate Storm Sewer System permit (MS-4), which was originally issued in 2003 by the Department of Conservation and Recreation. The university has recently submitted a new five-year registration statement that further quantifies the specific stormwater management and control measures that must be followed. The permit commits the university to six specific categories of control measures and Best Management Practices in the areas of public education and outreach, public involvement and participation, illicit discharge detection and elimination, construction site runoff control, post construction stormwater management, and good housekeeping.

**Recycling:** The university has reinstated the paper recycling program. Virginia Tech Recycling hired three employees, purchased a new recycling vehicle, purchased several hundred recycling bins, and various accessory equipment. Collection services have been established at nearly all academic and administrative buildings. The reinstatement enabled Virginia Tech Recycling to collect over 100 tons more of paper in 2007 than in 2006. This tonnage, along with increased recycling of other materials, increased the university’s overall recycling percentage to 32%, a 9% increase over the previous year. Last fall Tech participated in the first state-wide university

electronic waste recycling competition and collected 122,600 pounds of e-waste. Website: [www.recycle.vt.edu](http://www.recycle.vt.edu).

### **Completed Sustainability Projects and Initiatives:**

- Virginia Tech's transportation program received a "Best Place for Commuters" silver level award from the US Environmental Protection Agency and the Department of Transportation, and an "A" rating from the Sustainable Endowments Institute. Over \$400,000 in federal enhancement grants have been received to build bike trails, lanes, and other amenities.
- Retrofitted light fixtures in Wallace Hall, Whittemore Hall, Hahn Hall, the Vet Med facilities, and the Human Resources Annex are estimated to save over \$120,000 annually.
- Campus-wide water audit of all water consuming systems on the main campus identified approximately \$322,000 in annual savings. Water conservation measures implemented in McBryde Hall, Pamplin Hall, and the Sterrett Facilities Complex save an estimated 2.1 million gallons of water annually.

### **In-progress and Planned Sustainability Projects and Initiatives:**

- Installation of new steam distribution piping across campus with new insulation will greatly improve efficiency and reduce heat losses.
- The university and its consultant will be developing a detailed hydrologic assessment of the campus, a calibrated model, and recommendations on areas where existing buildings can be retro-fitted to manage stormwater more effectively.
- Installation of energy saving occupancy sensors for 146 classrooms, to be completed in June 2008, will result in \$10,370 annual savings in electricity costs.
- The new Life Science Building will have a vegetated roof (green roof).
- Fralin Hall and Hancock Hall lighting retrofit projects.

### **Significant Student Activities:**

- Approximately 50 students in the Urban Affairs & Planning (UAP) Program in the College of Architecture & Urban Studies conducted an inventory of The Town of Blacksburg and Virginia Tech energy use and greenhouse gas (GHG) emissions.
- Students participated in RecycleMania 2008 (a 10-week college and university competition).
- Hosted "Focus the Nation," a one-day "teach-in" for global warming solutions for America.
- Formed the student led environmental education group GREEN Team with a goal to educate all Hokies on how to live a more informed and sustainable life.

**Future Opportunities:** Throughout this past year the university has made tremendous advances in fostering awareness and providing educational opportunities on sustainability. The university needs to:

- Build on this momentum and expand the website: <http://www.facilities.vt.edu/sustainability>
- Review and revise current policies, and establish new policies such as a comprehensive energy plan that includes a technology/financial component, and a behavioral modification component.
- Establish broader communications strategies to enhance collaboration in teaching, research, and outreach.
- Explore and identify additional sustainability solutions that, along with current sustainability initiatives, will allow Virginia Tech to be a good steward of the environment while providing a high quality of life for learning, living, and working.