

**Energy and Sustainability Committee Meeting Minutes**  
**September 26, 2011**  
**2:00 – 3:00 p.m.**  
**Presidents Board Room, Burruss Hall**

**Present:** Fred Selby, Kayla Smith (for Sherwood Wilson), Travis Hundley (for Dwight Shelton), Mike Coleman, John Bush (for AVP - University Planning), Denny Cochrane, Elena Dulys (for Donna Ratcliffe), Bruce Ferguson, Rob Lowe, Georg Reichard, Mintai Kim, John Randolph, Nancy McGehee, Becky Saylor, Paul Winistorfer, Michael Painter, James Dale, Kyle Gardiner, and Alex Kosnett.

**Absent:** Tom Tucker

**Guests:** John Chermak, Angie De Soto, Kara Dodson, Alyssa Halle, Richard Hirsh, Maura Leveroos, Sarah Surak, Rial Tombes, Eleni Healey (Sierra Student Coalition, Beyond Coal at Virginia Tech), Sarah Hanks (YMCA), Sheel Patel (YMCA), and LeeAnn Reich (YMCA).

**Call Meeting to Order and Welcome Guests**

Chair Fred Selby called the meeting to order, welcomed everyone, and invited all attendees to introduce themselves.

**Approval of Agenda**

The Committee approved the agenda as proposed.

**Committee Overview and Charge Review**

Fred Selby presented the following Virginia Tech Governance Structure-related websites:

[http://www.governance.vt.edu/governance\\_instructions/structure.html](http://www.governance.vt.edu/governance_instructions/structure.html)  
<http://www.governance.vt.edu/bylaws.html>)

For the benefit of several new members, he explained from the websites the Energy and Sustainability Committee reporting structure and reviewed the committee's charge "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."

**Old Business – N/A**

**New Business**

**1) OES Student Intern Program Update**

Angie De Soto shared an update presentation on the Office of Energy and Sustainability (OES) Student Internship Program (see "E&SC Attachment 1 – Internship Program Progress Briefing.pptx"). The presentation described scope, timelines and deliverables for the following projects worked on this past summer and continuing through the fall semester: (1) "The Collegiate Football Sustainable Materials Management Toolkit" and EPA Partnership"; (2) "Sustain Lane Initiative"; and (3) "Campus Sustainability Portal". She then presented her plan to transition the current internship program to a studio class-

based model along with a future state organization structure layout and list of future potential projects.

## **2) Monthly Electricity Reports**

OES Graduate Assistant Alyssa Halle presented to the committee a brief overview of the OES Monthly Electricity Report initiative and demonstrated an example for Johnson Hall in August (see “E&SC 092611 Attachment 2 – Monthly Electricity Report Sample.pdf”). The Monthly Electricity Report is a way to share specific building electricity consumption, cost, and electricity-related carbon footprint information with building users. The purpose is to raise awareness and ultimately reduce energy consumption at Virginia Tech. The poster shows the previous month’s data and features energy saving tips. The reports will also be available via the OES website. Phase I of the program began in September in the campus residence halls, with posters being displayed on each residence hall floor. OES staff hope to expand the program further to include other campus buildings as part of a commitment from Facilities Services to reduce energy consumption campus-wide. In response to committee member Georg Reichard’s question about whether electricity usage data was normalized for weather, Alyssa Halle described earlier unsuccessful attempts to normalize data and associated difficulties. Georg Reichard offered to assist with this and as a follow-up, Alyssa Halle will schedule a meeting with him to discuss further.

## **3) Sustainability Week 2011 Recap**

Denny Cochrane, a member of the Sustainability Week 2011 Joint Steering Committee informed the committee that the “Sustainability Week” program was created in the fall of 2007 through a green partnership that included Virginia Tech, the Town of Blacksburg, and the local citizens group Sustainable Blacksburg. The program focused on sustainability awareness, education, and practical applications and it consisted of a series of keynote speakers, presentations, workshops, and fairs. “Sustainability Week 2007” was recognized at the state level and received a Governor’s Environmental Excellence Award.

“Sustainability Week 2011” was held September 18-24. To commemorate the fifth anniversary of the program, a Celebration Ceremony was held on Friday, September 16, at the Blacksburg Motor Company LEED Platinum building with Virginia Tech President Charles Steger and Blacksburg Mayor Ron Rordam providing remarks. Denny Cochrane then shared a series of representative photographs of many of the major events to include the Tree Planting Event near the Drillfield, the VT Active Commuting Celebration, a Tour of the Hahn Horticulture Garden, the Chef’s Roulette at the Wednesday Farmer’s Market, and the Community Gathering on Saturday held at the Farmer’s Market and Media Building front lawn address (see “E&SC 092611 Attachment 3 – Sustainability Week 2011 Pictures.pptx”). To view the events calendar see: [www.vt.edu/sustainability](http://www.vt.edu/sustainability).

## **4) 2011-2012 Request for Proposal for Student Organization Sustainability Initiatives (Green RFP)**

Prior to the beginning of Academic Year 2010-2011 the Office of Budget and Financial Planning and the Office of Energy and Sustainability created a Green RFP Pilot Program

to serve as a formal process to allow student organizations to submit sustainability initiative proposals for review and funding consideration. Proposals had to support “The Virginia Tech Climate Action Commitment.” Denny Cochrane reported that last year five proposals were approved for a total of \$26,763, and funds were provided in late March 2011 during the same fiscal year. Approved projects included the purchase and installation of 15 bike racks and 10 mixed paper recycling containers. Examples of both proposals were shown to Committee members (see “E&SC 0902611 Attachment 4a – Green RFP 2010-11 Bike Racks.pdf” and “E&SC 0902611 Attachment 4b – Green RFP 2010-11 Mixed Paper Recycling Containers.pdf”).

As a result of the successful pilot program, the university will conduct the program again for Academic Year 2011-2012. The Office of Energy and Sustainability will serve as the liaison to student organizations wishing to submit a proposal. The procedures, timelines, and format for submission are similar to last year and are contained in the Office of Energy and Sustainability Memorandum dated September 13, 2011. Proposals are to be submitted by October 12, 2011, and must be provided to the Office of Budget and Financial Planning by November 18, 2011.

**5) “Ytoss?” 2011 Update**

Denny Cochrane introduced LeeAnn Reich, Director of Volunteer Outreach for the YMCA at Virginia Tech, and Sheel Patel, Ytoss? Student Co-Director. Sheel provide an excellent summary presentation on Ytoss? 2011 (see “E&SC 092611 Attachment 5 – Ytoss 2011.pptx). Approximately 21,000 pounds of items were collected during Student Move-Out in May 2011. Items were placed and stored in PODs modular containers over the summer months, and subsequently sold during Student Move-In in August 2011. Using the PODs significantly enhanced the collection and storage process, and reduced costs. LeeAnn will be leaving her position on September 30. The Committee thanked her for a job well done and welcomed her replacement, Sarah Hanks.

**6) AASHE Stars Silver Rating**

The Virginia Tech Board of Directors unanimously approved “The Virginia Tech Climate Action Commitment” on June 1, 2009. Item #1 in the commitment states “Virginia Tech will be a leader in campus sustainability.” The Association for the Advancement of Sustainability in Higher Education (AASHE) is the nationally recognized as the professional sustainability organization for colleges and universities. AASHE has created a comprehensive sustainability dashboard of metrics in a program called “STARS” (Sustainability Tracking, Assessment, and Rating System) which measures an institutions sustainability posture in 135 separate topics. To be a leader in campus sustainability, Virginia Tech had to participate in STARS. The STARS program has a rating system similar to the US Green Building Council’s LEED program with institutions able to achieve a bronze, silver, gold or platinum rating.

In December 2009 the university became a STARS Charter Participant, and the Office of Energy and Sustainability assumed the overall lead for the data gathering and submission for our response. Denny Cochrane stated the STARS submission was an exhaustive undertaking which included over 1,000 man hours and 360 URLs. Virginia Tech’s

submission was conducted on August 2, 2011, and it included a signed endorsement letter from Virginia Tech President Steger. Using the STARS Reporting Tool he reviewed the Summary Profile for Virginia Tech. The STARS program has three primary categories which are: Education & Research, Operations, and Planning, and Administration & Engagement. Each primary category has a number of subcategories and credits. Virginia Tech achieved an overall score of 61.94 points which equates to a very high “Silver” rating, just 3.06 points shy of the 65 points needed for gold. To date, Virginia Tech is the highest rated university in the Commonwealth of Virginia and the second highest rated university in the Atlantic Coast Conference.

Denny Cochrane concluded his remarks by acknowledging the truly outstanding contribution of OES Graduate Assistant Alyssa Halle who had the lead for all data entry submission into the STARS Reporting Tool; he stated that she deserves tremendous praise for a job extremely well done!

#### **7) Proposed Future Meeting Dates / Times**

Fred Selby proposed to the committee to continue the past practice of full committee meetings being held on the last Monday afternoon of each month (with the exception of December) unless a significant scheduling conflict existed. The committee agreed to this for the 2011-2012 academic year.

Dates: As a result, the remaining scheduled meeting dates for Academic Year 2011-2012 are as follows:

- October 31, 2011
- November 28, 2011
- January 30, 2012
- February 27, 2012
- March 26, 2012
- April 30, 2012

Times and Location: All meetings will be held from 2:00 p.m. to 3:00 p.m. in the Presidents Board Room, 210 Burruss Hall unless noted above.

#### **8) Open Discussion**

Fred Selby asked the committee if anyone present had particular topics or issues they wanted the committee to address during the 2011-2012 academic year; no immediate topics were suggested and he asked the committee to consider this more over the next month. In response, John Randolph asked whether Chair Fred Selby had specific activities or projects for the committee to work on, and commented that he felt the committee should be “doing” and not just “reporting.” Fred Selby stated he would discuss this further with Associate Vice President for Facilities Mike Coleman.

#### **Adjourn**

The meeting was adjourned.



# OES Internship Program Progress Briefing



- What projects are being worked on?
- Where do each of these projects stand?
- Where is this program going?





**THANK YOU!!**



# Summer + Fall Projects

1. “The Collegiate Football Sustainable Materials Management Toolkit” + EPA Partnership
2. Sustain Lane Initiative
3. Campus Sustainability Portal

# *Toolkit Project Timeline*

- Oct. 2010: Identified need for resource
- Spring 2011: Original research
  - 1<sup>st</sup> VT Intern team formed
  - Technical Experts Panel established
- Summer + Fall 2011: Toolkit compilation
  - 2<sup>nd</sup> VT Intern Team formed
  - Sept. 2011: Webinar with US EPA + Toolkit launch
  - Oct. 2011: Targeted web resource launch
- Phase 2: National partnership formation



# Toolkit Project Partners

- VT Office of Energy & Sustainability
- US EPA
- CURC
- AASHE
- Technical Experts Panel:
  - Ohio State
  - Penn State
  - University of Colorado Boulder
  - Wake Forest
  - PSSI/Stanford Recycling

# Toolkit's Table of Contents

- **1. Acknowledgements**
- **2. Introduction**
  - Explanation of this Toolkit and Project Approach
  - What is a “Zero Waste” Program and Why Develop One for Your Stadium?
  - History and Development of the EPA Game Day Challenge
  - Making the Case to Stakeholders
- **3. Campus Case Studies: Analyzing the Technical Experts Panel**
- **4. Game Day Logistics – Common and Best Practices**
  - Inside the Stadium
  - Tailgating
  - Costs and Funding
  - Personnel
  - Concessionaires
  - Outreach and Education
  - Goals and Measuring Success
  - Game Day Program Development Timeline
- **5. Appendices**


# *SLI Project Timeline*

- Spring 2011: Green Effect Partnership
  - 1<sup>st</sup> VT Intern team formed
  - Partnership built that included on campus bookstore and student organizations
- Summer + Fall 2011: Towel transition
  - 2<sup>nd</sup> VT Intern Team formed
  - Design development & survey
    - Over 4,200 votes!
  - Launched towel and marketing campaign
  - ***Need your support getting it to catch on!***
- Spring 2012: Plan for next season

# Sustain Lane Initiative

- “VT Green Effect” v. S.L.I.
- “Hokie Stone” & “The Wall”
  - Season-long initiative
  - Integrates with football culture
- Initiative brings together:
  - B.O.H. material sorting
  - Fund generation
  - Sustainable Hokie culture





*We are the Sustain Lane Initiative. We strive to:*

- Raise money for Sustainability projects on campus to reduce the environmental and social impacts of our university
- Create jobs locally through green [and recycled] technology
- Establish a sustainable Hokie Culture by building the wall of defense on game day

Get your Hokie Stone today and join the wall.

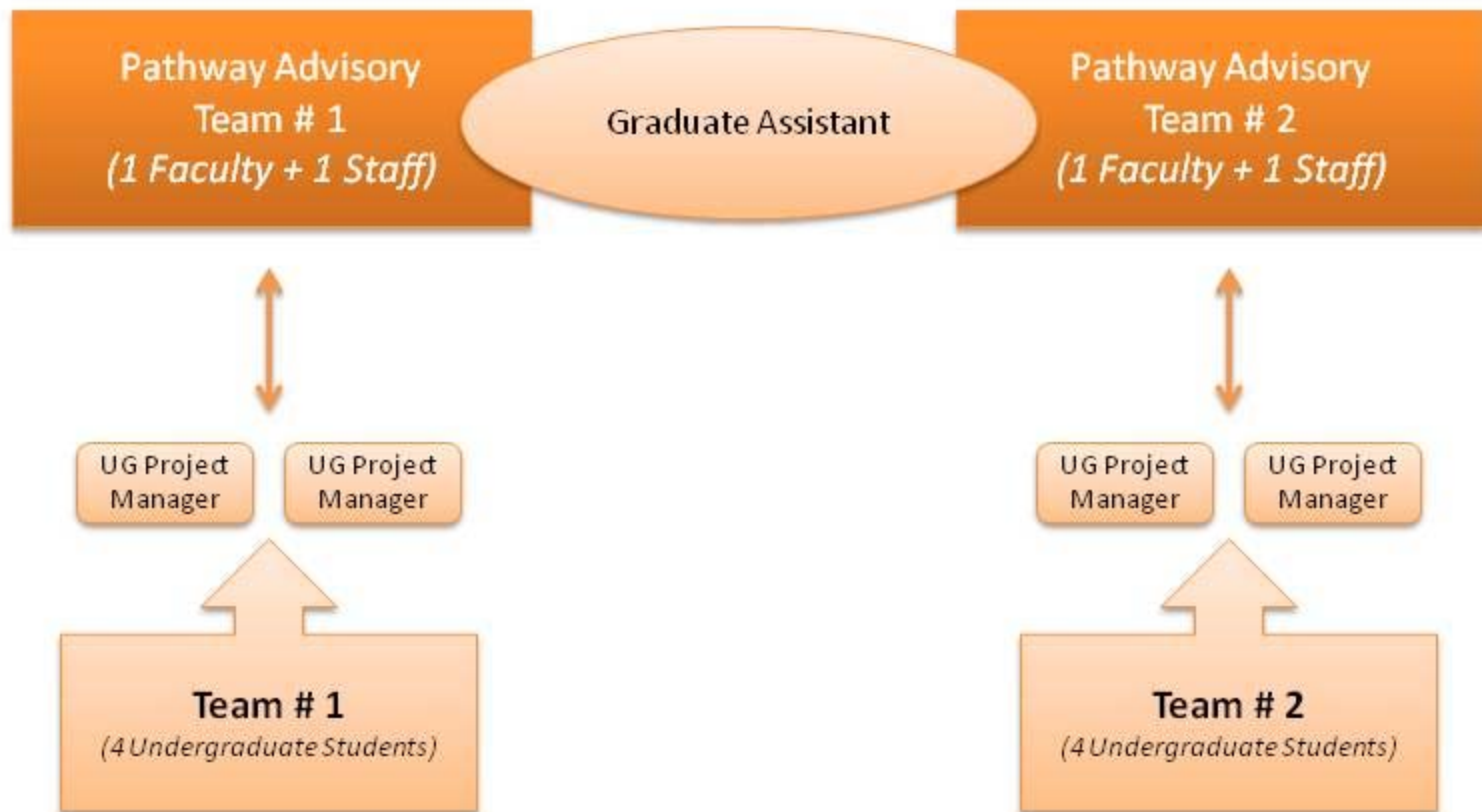
# *Sustainability Portal*

- *Sustainability.vt.edu* secured
- CMS training
- Data sorting & organizing
  - STARS
  - Status Report
  - Websites
- Basic website launch date:  
November 18,2011



# *Program Progression*

- Transition to studio class pilot
  - Project + classroom based learning objectives
- Form advisory teams for projects
  - Collaboration between operations and academics
  - Teamwork through all layers of university
- Tie projects to campus SOS
  - 6 strategic pathways



# Potential Projects

- “Sustainability Advisors”
- Portal evolution & maintenance
- Sustain Lane Initiative
- Energy reduction in buildings
- EPA + AASHE Partnership
- Catawba Sustainability Center
- FS EMS Development
- ***AND MORE!!***



# Johnson Hall

## Monthly Electricity Report

### August, 2011



**Johnson Hall**

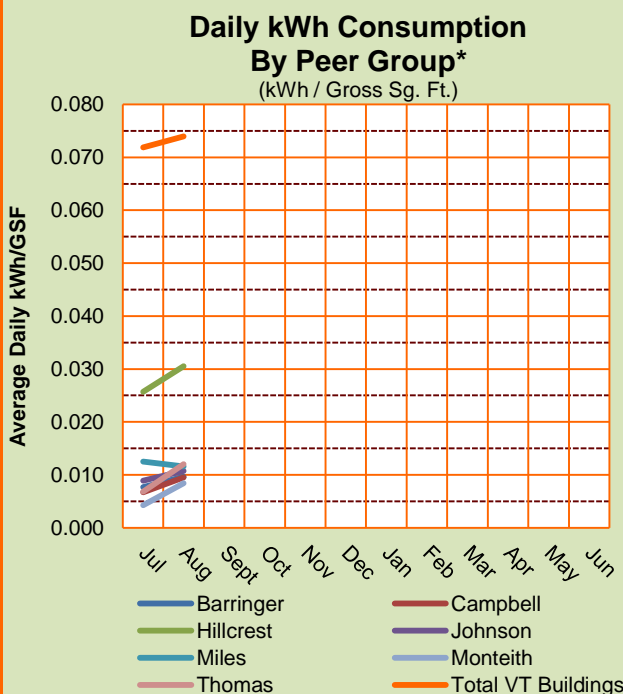
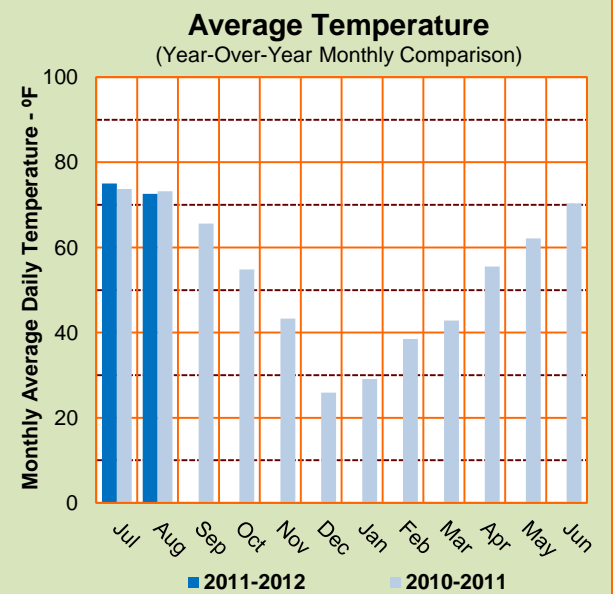
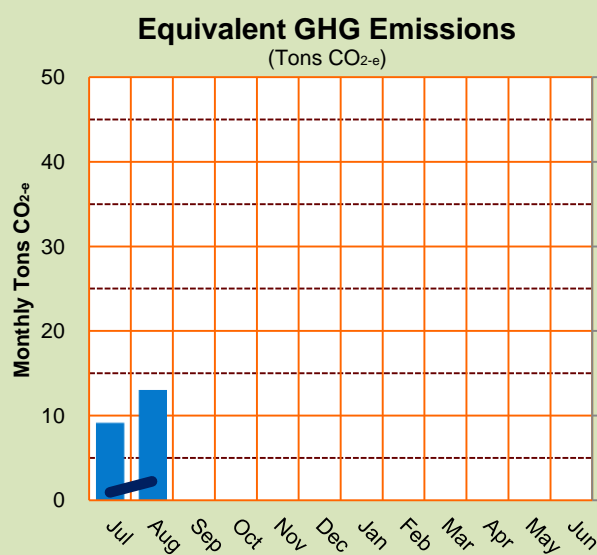
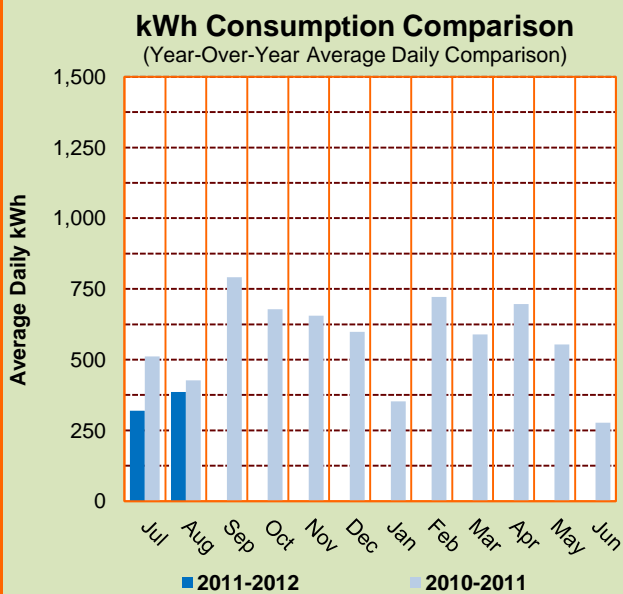
**kWh: 13,120**  
**Cost: \$1,269**  
**Tons CO<sub>2-e</sub>: 13**

Monthly\* Use for:  
 August, 2011

\*No. of Billing Days: 34

For definitions of kWh, Cost, and Tons CO<sub>2-e</sub>, please see *Definitions* below.

Academic Year To-Date Total	Daily Average for August, 2011	Daily Average for August, 2010	Ave. Change from August, 2010
kWh: 22,400 Cost: \$2,262 Tons CO <sub>2-e</sub> : 22	kWh: 386 Cost: \$37 Tons CO <sub>2-e</sub> : 0.38	kWh: 427 Cost: \$35 Tons CO <sub>2-e</sub> : 0.42	<b>-10.6% Decrease in kWh!</b>



### MONTHLY ENERGY TIP SECTION

Introducing...Your **MONTHLY ELECTRICITY REPORT!!!**

The **Monthly Electricity Report** is a new way to share specific building electricity consumption and cost information with building users as well as their electricity-related carbon footprint impact.\* It's purpose is to **raise awareness** about Virginia Tech energy consumption and **promote conservation**.

Each coming month's report will include a practical energy-saving tip to help reduce Virginia Tech's overall energy consumption and help achieve our sustainability goals.

\* Per "The Virginia Tech Climate Action Commitment Resolution Commission on University Support Resolution 2008-2009C" (<http://www.facilities.vt.edu/sustainability/climateAction.pdf>), Virginia Tech has established a target for reduction of campus GHG emissions to 80% below 1990 emission level by 2050.

**Definitions:**

- kWh:** Total building electricity consumption per billing period as metered by VTES
- Cost:** Monthly billing at current VTES chargeout rate of \$0.0972/kWh
- Tons CO<sub>2-e</sub>:** Equivalent **Greenhouse Gas (GHG)** emissions for carbon footprint impact;
- Peer Groups\*\*:** Groupings of similar building type/functionality; data are normalized on a per-day, per-gross square foot basis.
- \* Calculated using Emission Coefficient of 2.249 lbs CO<sub>2</sub> equiv. per kWh
- \*\* For more information on peer groupings and campus energy usage in general, please go to the OES Energy & Emissions website <http://www.facilities.vt.edu/sustainability/emissions.asp>

Notes:  
 \* Peer Group: Small Residence Halls: Non Air-Conditioned



# Sustainability Week 2011





# Sustainability Week 2011





# Sustainability Week 2011





# Sustainability Week 2011





# Sustainability Week 2011





# Sustainability Week 2011





# Sustainability Week 2011





# Sustainability Week 2011





## Student Organization Sustainability Initiative Funding Proposal

### **Part I- General Information:**

<b>Name of Student Organization</b>	Environmental Coalition at Virginia Tech
<b>Contact/Responsible Person</b>	Lyndsay McKeever
<b>Contact Office Held/Title</b>	Member
<b>Contact Email Address</b>	mckeevla@vt.edu
<b>Contact Telephone Number</b>	(571) 214-8805

### **Part II- Project Cost Information**

Estimated Cost of this Proposal	\$10,300	See III.C. below
Estimated Savings -	unknown	See III.D. below
<b>Net Cost of this Proposal =</b>	<b>\$10,300</b>	

### **Part III- Supporting Information**

A. Please describe your sustainability initiative and attach supporting documentation.

#### **Bicycle Friendly University at Virginia Tech**

With Environmental Policy and Planning Senior Seminar students completing Town of Blacksburg Bicycle Facility Assessments and the Greenway/Bikeway/Sidewalk Corridor Committee taking steps toward implementing a Blacksburg Master Bicycle Plan, it is essential Virginia Tech strive towards improving campus bicycle infrastructure and strengthening commuter cyclist education and safety.

The Bicycle Friendly University Program ([bikeleague.org/university](http://bikeleague.org/university)) through the League of American Bicyclists is a national campaign launched in 2010 which encourages universities to lead the way in healthy, sustainable, carbon free active transportation on two wheels. Using the guide as a tool and learning from the example of other universities bike programs, Virginia Tech can jumpstart their efforts to becoming bicycle friendly. The Alternative Transportation Manager, Debby Freed, has confirmed that she has added becoming a Bike Friendly University to her goals.

The current lack of campus bike parking is an easy first step Virginia Tech can take to improve bicycle infrastructure by funding more bike racks. More bike parking will encourage students and employees to commute to campus by active transportation rather than driving a car to campus. As a first step towards becoming a Bicycle Friendly University, Transportation and Campus Services, in conjunction with the Environmental Coalition at Virginia Tech, seeks to secure 10-15 new bike racks in needed academic areas.

B. How does this initiative help to achieve the goals of the Virginia Tech Climate Action Commitment Resolution and Sustainability Plan?

A student-led campaign push for a Bicycle Friendly University at Virginia Tech starting with 10-15 additional bike racks for the 2011 academic year helps achieve the goals of the VTCAC&SP. Specifically, added bike infrastructure will encourage students and employees to sign up for the Commuter Alternative Program called Bus, Bike and Walk. Rather than buying a parking pass and commuting to campus in a single occupancy vehicle, students will be encouraged to actively commute, saving them gas money and reducing GHG emissions from driving a car. The more students who sign up for the Bus, Bike and Walk program will have the effect of reducing Virginia Tech's carbon footprint while also decreasing congestion.

The Transportation sector of the VTCAC&SP on pp.61 recommends a Bike Share Pilot Program and Program as a midterm (2013-2015) goal for alternative transportation. According to Table 16: Transportation and Parking Cost/Benefit Table, an average of 11 tons of CO<sub>2</sub>/year could be saved if 30 bikes are used twice a day to commute two miles around campus. Added bike racks would help push Virginia Tech closer towards launching a Bike Share program.

C. What is the cost of your proposal? Please describe in adequate detail the basis for your cost estimate.

Debby Freed confirmed that a 5-Loop bike rack costs approximately \$500. A cement pad is needed to serve as a foundation for securing the bike rack. Depending on the site selected, a cement pad may already exist, or one will need to be poured. The approximate cost for a cement pad is \$500. The approximate cost to install the bike rack to the cement pad is \$30, and the work would be performed in-house by the VT Grounds Department. Thus, each bike rack with cement pad and installation could cost as low as \$530, or as high as \$1,300.

Request funding for 10 bike racks. Assuming pads are required for all of the racks, the total cost estimate is \$10,300.

D. Will your proposal produce cost savings for the University? If so, how much? Please describe in adequate detail the basis for your savings estimate.

The addition of more bike racks will encourage students to commute by bike to campus and will help pave the way to a behavioral and cultural shift towards alternative transportation. The university will see the benefits in cost savings of less road and parking spot maintenance. An average parking spot costs Parking Services a large amount of money to maintain annually. While Virginia Tech is currently prioritizing car travel with the planned 5 parking garages by 2020 in the Master Plan for campus expansion, installing campus bike racks will alleviate the unavoidable morning commute congestion. More bike racks will reduce Virginia Tech's overall carbon footprint as an increasing number of students and employees find it more efficient to bicycle to campus.

Virginia Tech has seen on average a 10% increase of bicyclists every academic year. New bike rack structures were installed last year to meet the demand of bike parking, yet this year has seen an even bigger demand. The trends for bicycling are evidently increasing and because of this, more racks will be needed to accommodate the influx of annual student bicyclists.

Additionally, as more students and employees bicycle on campus a greater need for bicycle safety, education and amenities will present itself. The Bicycle Friendly University guide can be used for continued support, materials and examples of other universities bike/pedestrian programs to achieve a healthy, safe and livable Virginia Tech campus.

E. Is this funding request an Ongoing or One-Time change (**please check one**)?

**One-time**

Ongoing

If ongoing funding is requested please explain how the initiative and resource needs may change in future years.

F. Is funding available for this request from another source? If yes, describe the funding (source, amount, etc.)

Funding may be available through the SGA, applying for grant money, funds generated from BB&W passes, Parking Services, Transportation and Campus Services, Adopt-a-rack student organization fundraising, or the League of American Bicyclists.

#### **Part IV- Requestors/Reviewers**

Lyndsay McKeever, Environmental Coalition at Virginia Tech

Prepared By (Name of Contact for Student Organization)

*Denny Cochran*

Reviewed By (Name of Office of Sustainability Representative)

*10/22/2010*

(Date)

*10-22-10*

(Date)

Supporting documents:

1. Bicycle Friendly University guide <[www.bikeleague.org/university](http://www.bikeleague.org/university)>.
2. Channel 9 News "Bike rack Battle at Virginia Tech" Oct 14, 2010  
<<http://www2.wsls.com/news/2010/oct/14/bike-rack-battle-continues-virginia-tech-ar-563707/>>.
3. Various CT articles on campus biking  
<<http://www.collegiatetimes.com/stories/15962/cyclists-alarmed-by-notices>>.  
<<http://www.collegiatetimes.com/stories/15948/biking-central-to-campus-sustainability>>.  
<<http://www.collegiatetimes.com/stories/10764/biking-becoming-big-in-blacksburg/p2>>.  
<<http://www.collegiatetimes.com/stories/11963/column-life-in-the-bike-lane-offers-sustainable-alternative/p2>>.



## Student Organization Sustainability Initiative Funding Proposal

### **Part I- General Information:**

<b>Name of Student Organization</b>	Student Government Association (SGA)
<b>Contact/Responsible Person</b>	<b>Tom Wittenberg/Aaron Maertins</b>
<b>Contact Office Held/Title</b>	<b>Executive Director of External Affairs/Secretary of Transportation</b>
<b>Contact Email Address</b>	<a href="mailto:wittenbt@vt.edu">wittenbt@vt.edu</a> / <a href="mailto:arjm5142@vt.edu">arjm5142@vt.edu</a>
<b>Contact Telephone Number</b>	<b>(540) 231-8631 (SGA Office)</b>

### **Part II- Project Cost Information**

Estimated Cost of this Proposal	\$5,150	See III.C. below
Estimated Savings -	Unknown (See Section D)	See III.D. below
<b>Net Cost of this Proposal =</b>	<b>\$5,150</b>	

### **Part III- Supporting Information**

A. Please describe your sustainability initiative and attach supporting documentation.

The Student Government Association at Virginia Tech, with assistance from Steve Mouras, the Director of Transportation and Campus Services, and Debby Freed, the Alternative Transportation Manager at Transportation and Campus Services, has identified a need for numerous additional bike racks on Virginia Tech's campus. So far this semester, well over 100 citations have been issued to illegally parked bikes, and well over 30 bikes have been impounded by Parking Services staff. This response from the University has altered student perception towards using methods of Alternative Transportation on some levels, and, because the goal of SGA Transportation is to promote the use of alternative transportation, we feel that this issue needs to be addressed immediately, so that the University can continue to work towards achieving its goals outlined in the Virginia Tech Climate Action Commitment Resolution.

NOTE: This proposal for 5 bike racks is separate and related to a similar proposal submitted by the Environmental Coalition for 10 bike racks. Bike racks is a major student priority and the sum total for both proposals is for 15 bike racks.

B. How does this initiative help to achieve the goals of the Virginia Tech Climate Action Commitment Resolution and Sustainability Plan?

With respect to the Virginia Tech Climate Action Commitment Resolution and Sustainability Plan, we believe that this proposal will further objectives 3, which states:

Virginia Tech will establish a target for reduction of campus GHG emissions to 80% below 1990 emission level by 2050, and interim targets from 2006 emissions of 316,000 tons consistent with the Virginia Energy Plan, the Governor's Commission on Climate Change, the Town of Blacksburg, and the federal administration: for 2012, 295,000 tons (on path to 2025 target); for 2025, 255,000 tons (2000 emission level); and for 2050, 38,000 tons (80% below 1990 emission level).

and 11 which states:

Virginia Tech will improve transportation energy efficiency on campus through parking, fleet, and alternative transportation policies. Alternative transportation use will increase from the current level of 45%, to a goal of 52% in 2015, and 60% in 2020.

SGA Transportation is committed to a partnership with Sustainability organizations and will help fulfill its obligations to the university community and the outside world by assisting in the achievement of the goals associated with alternative transportation in Climate Action Commitment Resolution. Through funding of this proposal, we are potentially cutting back on the use of cars driving to campus, and promoting bike use as a sustainable means of transportation to and from campus, as well as in the greater Blacksburg community.

C. What is the cost of your proposal? Please describe in adequate detail the basis for your cost estimate.

SGA asks that the Office of Sustainability help us toward our goal of supporting an environment that fosters use of alternative transportation by funding 5 bike racks. Through conversation with Debby Freed, we have ascertained that the cost of one bike rack is \$500. However, if concrete needs to be poured on the site that the bike rack will be placed, there is an extra cost of \$500. Installation of the bike rack can be done for \$30 with in-house labor. Therefore, SGA asks that the Office of Sustainability grant us an amount of funding anywhere between \$2,650 (if not cement pads are needed) and \$5,150 (assuming cement pads are needed for 5 bike racks) for the cost of purchasing and installing bike racks at sites that the Alternative Transportation Manager has identified as needing more bike parking.

- D. Will your proposal produce cost savings for the University? If so, how much? Please describe in adequate detail the basis for your savings estimate.

Savings will be seen across the board at the university with the introduction of more bike racks. As of October 15, 2010, 37 bikes had been impounded by Parking Services, with a fine of \$30 to recover each bike. If the current trend continues until May, almost 150 bikes will be impounded. If we could save every one of those bikes from being impounded, members of the Virginia Tech community could save \$4500 total. On the University side of the issue, the savings are difficult to estimate, seeing as this is really the first time something like this has been implemented. However, if this proposal is as successful as everyone could hope it would be, then, it may eliminate need for one parking garage in the long run.

- E. Is this funding request an Ongoing or One-Time change (**please check one**)?

**One-time**

Ongoing

If ongoing funding is requested please explain how the initiative and resource needs may change in future years.

- F. Is funding available for this request from another source? If yes, describe the funding (source, amount, etc.)

SGA Transportation has spent a considerable amount of time lobbying support from within our own organization, as well as outside organizations. Other sources of funding could include SGA, a partnership between the Residence Hall Federation at Virginia Tech and the Virginia Tech chapter of the National Residence Hall Honorary, the Inter-Fraternity Council, and the Graduate Student Assembly if legislation passes through their respective organizations. This would amount to a possible commitment of 4 to 5 bike racks coming to campus this year, with an added commitment of an additional 4 to 5 bike racks from SGA over the next 3 years. Other organizations that have officially endorsed our proposal include Leadership Tech, NATIVE at VT, the Triathlon team, the Cycling team, the Blacksburg Bike Co-Op, and the Urban Affairs and Planning Student Association.

#### **Part IV- Requestors/Reviewers**

Tom Wittenberg/Aaron Maertins	10/25/2010
Prepared By (Name of Contact for Student Organization)	(Date)
Denny Cochrane <i>sec</i>	10/25/2010
Reviewed By (Name of Office of Sustainability Representative)	(Date)



## Student Organization Sustainability Initiative Funding Proposal

### **Part I- General Information:**

<b>Name of Student Organization</b>	Environmental Coalition
<b>Contact/Responsible Person</b>	Kara Dodson
<b>Contact Office Held/Title</b>	President
<b>Contact Email Address</b>	karad3@vt.edu
<b>Contact Telephone Number</b>	(434) 509-7573

### **Part II- Project Cost Information**

Estimated Cost of this Proposal	\$7,346	See III.C. below
Estimated Savings -	\$2,140 (per year)	See III.D. below
<b>Net Cost of this Proposal =</b>	<b>\$5,206 (first year)</b>	

### **Part III- Supporting Information**

A. Please describe your sustainability initiative and attach supporting documentation.

Mixed paper recycling for the residence halls is a student priority. Virginia Tech has no mixed paper recycling receptacles located inside or outside the residence halls. The only mixed paper recycling containers are located inside academic and administrative buildings. Students have two choices. Students either transport their mixed paper to academic or administrative buildings for collection, or they deposit their mixed paper in trash receptacles. The first choice is unrealistic, and the second choice is unacceptable. This proposal requests funding to purchase ten 1-1/2 cubic yard containers with lids for placement outside the residence halls at regional collection locations. Providing students with a realistic mixed paper recycling option will increase our overall recycling rate and prevent that material from being deposited in our local landfill.

B. How does this initiative help to achieve the goals of the Virginia Tech Climate Action Commitment Resolution and Sustainability Plan?

The VTCAC Resolution, item 8, states: "Virginia Tech will adopt a goal of 35% recycle rate by 2012 and 50% by 2025." (see: <http://www.facilities.vt.edu/sustainability/climateAction.pdf>) Using the Commonwealth of Virginia formula, Virginia Tech achieved a 36.48% recycling rate for calendar year 2009. The university recycled over 1,887 tons of principal recycled materials last year which included 372.6 tons of mixed paper (20%). Capturing mixed paper recycling from the residence halls will increase those figures and our recycling rate.

C. What is the cost of your proposal? Please describe in adequate detail the basis for your cost estimate.

The Facilities Services Department received a customer quote from W. W. Granger, Inc. of \$7,346 for the ten 1-1/2 cubic yard receptacles. The manufacturer is Rubbermaid. Each receptacle has a hinged lid to keep the mixed paper dry. These receptacles are heavy duty and are already being used on campus for other requirements. Mixed paper is collected using a 16 foot box truck with rear lift. The lift can accommodate the proposed receptacles with no modifications.

D. Will your proposal produce cost savings for the University? If so, how much? Please describe in adequate detail the basis for your savings estimate.

This proposal represents a cost savings due to the difference between waste disposal costs versus the cost of mixed paper recycling. Virginia Tech is one of five jurisdictional members of the Montgomery Regional Solid Waste Authority (MRSWA). The majority of our recycling material, and all of our municipal solid waste (trash) is delivered to MRSWA. Our cost of mixed paper recycling is much lower than our cost for municipal solid waste. Presently, our cost per ton for mixed paper recycling is \$28, and our cost per ton for municipal solid waste is \$51. Thus, using today's figures, the net cost savings per ton is \$23. As shown in Part III B above, we recycled 372.6 tons of mixed paper in calendar year 2009. It is estimated that the additional recycling containers will increase the amount of recycled material by 25%. This represents a net savings of \$2,140 ( $\$23 \times 372.6 \times 0.25$ ). The cost savings will be realized every year. With an upfront cost of \$7,346 and an estimated annual savings of \$2,140, this project has a simple payback period of 3.5 years. From an economic standpoint, it behooves the university to capture our mixed paper for recycling.

Economics aside, mixed paper recycling in residence halls is one of the most requested items by students to the SGA and to the Office of Sustainability. Providing a method for residence to more easily participate in mixed paper recycling will help demonstrate the university's commitment to sustainability.

E. Is this funding request an Ongoing or One-Time change (**please check one**)?

One-time

Ongoing

If ongoing funding is requested please explain how the initiative and resource needs may change in future years.

F. Is funding available for this request from another source? If yes, describe the funding (source, amount, etc.)

No. A similar proposal was presented to the Parents Fund for consideration, but because of limited funding available it was not favorably considered.

#### **Part IV- Requestors/Reviewers**

Kara Dodson, President of the Environmental Coalition at Virginia Tech

October 14, 2010

Prepared By (Name of Contact for Student Organization)

(Date)

DENNY COCHRANE

October 15, 2010

Reviewed By (Name of Office of Sustainability Representative)

(Date)





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Load Capacity			Steel Frame Tilt Truck				
Overall Height			1250 lb				
Overall Length			43-55/64"				
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Wheel Type			33-7/16"				
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			Blue				

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# YTOSS SALE

ENERGY AND SUSTAINABILITY COMMITTEE  
PRESIDENT'S BOARD ROOM – BURRUSS HALL, 2:00p.m.  
November 14, 2011



# WHY YTOSS?

- Contribute to the overall sustainability of Blacksburg and Virginia Tech
- Increase awareness for environmental concerns
- Make this sustainability event known throughout campus
- Generate revenue to support YMCA outreach programs and services





# WE'RE ALREADY HELPING:

2009 Governor's Environmental Excellence Award (Bronze)

Estimated over 40,000 pounds of waste kept out of the landfill in the past two years

Created hundreds of volunteer and leadership opportunities for campus and community members

**BUT WE CAN DO BETTER!**



# CURRENT YEAR ACCOMPLISHMENTS

Raised over \$10,000, about \$7,000 in profits due to increase in sponsorships to cover fixed costs

Tonage slightly increased to 21, 290 pounds

Integration of PODS was a success

- Saved time and improved collection process



# GOALS FOR UPCOMING YEAR

Increase Collection by 15%

- Reaching out to apartment complexes

Problem with Rug Collection

- Rug recycling



Ytoss Sale

- Moving the sale to McComas
  - Better Access (esp. for marketing) and cost efficient

Volunteer Recruitment

- Engaging volunteers to see the full circle of their impact
- Tapping into Specific Groups

**THANK YOU  
ENERGY AND  
SUSTAINABILITY  
COMMITTEE**