

ENERGY AND SUSTAINABILITY COMMITTEE MEETING

November 16, 2015

Room 325, Burruss Hall

MEMBERS:

Members Present: Bruce Obenhaus, Rob Lowe, David Mellichamp, Katie Reaves, John Chermak, Kayla Smith (for Sherwood Wilson), Tim Baird, Devita McCullough-Amal, Sydney Lavery, Debbie Greer (for Dwight Shelton), Ruben Avagyan, Jason Soileau, Denny Cochrane, Allison Homer, Steve Mouras.

Members Absent: Sean McGinnis, Melvin Amos, Chris Kiwus, Richard Benson, Francis Keene.

Recorder: Emily Schosid.

Guests: Emily Schosid, Katy Shepard, Millie Smith

1. Welcome & Introductions E&S Committee Members; Review Charge

Mr. Mouras called the meeting to order at 2:01PM

2. Approval of Proposed Agenda

Mr. Mouras asked for changes to the agenda, and receiving none, the agenda was approved.

3. Approval of October 26, 2015 Minutes

Mr. Mouras asked for changes to the October 27 minutes, and receiving none, the minutes were approved.

4. Old Business

a. 2015-2016 Green RFP Status: Denny Cochrane

Mr. Cochrane reported that he has received more proposals than any other year before. Because there were some projects that got caught up in junk mail and to give students more time to finish their proposals, the deadline for proposals was extended to November 20. Mr. Cochrane gave a brief report on some of the proposals that he has received, including solar panel projects, low-flow toilets, garden improvements, and others. Mr. Cochrane then gave a timeline of the process: over the next two months, the Office of Energy and Sustainability will be doing a completion review of the proposals. A sub-committee will be appointed by the E&S Committee at the January 25, 2016 meeting. This sub-committee will review and rank the projects that passed the completion review.

b. Campus-wide Sustainability Outreach: Emily Schosid

Ms. Schosid gave a brief review of the process the Sustainability Outreach Working Group has been undertaking. The group is releasing a survey that is intended to be widely circulated and which asks broad questions about sustainability priorities for individuals and for Virginia Tech. Ms. Schosid asked for the committee to distribute the survey widely among peers, students, list serves, student groups, and other outlets. Mr. Chermak asked if it was possible to send the survey to all members of the Virginia Tech community. Mr. Mouras said that this ability was usually reserved for things like campus emergencies and notes from the President. Mr. Chermak asked if the committee could keep track of

ENERGY AND SUSTAINABILITY COMMITTEE MEETING

who the survey was sent out to. Ms. Schosid asked that everyone copy her on any email blasts to colleagues, students, and others. Mr. Obenhaus asked whether the working group was using the Center for Survey Research. Mr. Mouras said that it might become something that the committee may decide to use based on the feedback from the initial survey.

c. Intern Program Energy Competition: Emily Schosid

Ms. Schosid gave an overview of the residence hall energy competition *Turn Down 4 Watt*. Student interns in the Office of Sustainability have been working on outreach and education in the residence halls around energy and water reduction during the annual event. The competition ended last week, but the final results have not been reported yet. Mr. Chermak asked if the overall savings were monetized in any way. Ms. Schosid said that because the office collected better baseline data this year that overall energy reductions and money savings were possible to calculate. Mr. Mouras added that last year the office only had one week of baseline data, while this year the office got three weeks of baseline electricity data.

5. New Business

a. Energy Update (Greenhouse Gas Review): Ruben Avagyan

Mr. Avagyan gave an update on the first phase of his 5-year energy reduction plan. Some of the projects include upgrades to the North Chiller Plant. Meters and valves have been installed or replaced in nearly all buildings on campus. In January and February 2016 new building upgrades will be added to the chiller plant itself. Additionally, an energy management software tool has been selected, and the size and scope of a pilot program have been determined: 15 campus facilities will participate in the pilot. The software is expected to be purchased by January 2016 and the installation will be complete by June 2016. The Energy Management Office has been working to install steam meters on campus buildings. The first 15 buildings for metering have been selected and the winter of 2015-2016 will be used to test various meter technology. The best meter is planned to be chosen by May 2016 and the meters will be installed during that summer. Mr. Mouras asked when Mr. Avagyan expected to have all of the primary utilities would be fully metered on campus. Mr. Avagyan said that the goal was to have all buildings fully metered in the next 5 years, depending on funding availability. Mr. Mouras asked if water meters were included in this project, and Mr. Avagyan said that there are water meters on buildings already. Mr. Chermak asked if anyone collected water data and Mr. Avagyan said that Virginia Tech Electric Services is responsible for that data collection. Mr. Avagyan went on to talk about the energy audits for the top 10 energy hog buildings. The plan is to have all 10 audits complete by May 2016. Mr. Mouras asked what the return on investment was preferred for energy projects. Mr. Avagyan said that the Budget Office likes to see a full return on investment in 6 or fewer years. However, these are for the bundle of projects together. Not every individual project will have a 6 year ROI, but together the hope is that the bundle of projects will be repaid in 6 years or less.

Mr. Avagyan then reported on some historical greenhouse gas emissions data, along with the goals set out by the Climate Action Commitment. The CAC says that VT's goal will be to reach 80% below 1990 GHG emissions levels by 2050, with several interim goals. Ultimately, this means that the GHG emissions goal is 38,000 tons of GHG emissions by 2050. So far, Virginia Tech has made slow progress on stated goals. In order to follow the trajectory set out by the CAC, the 2015 emissions should have been about 280,000 tons, but in reality it was closer to 325,000 tons. Mr. Soileau asked if there was

ENERGY AND SUSTAINABILITY COMMITTEE MEETING

any data on the GHG emissions per square foot, and Mr. Avagyan said that this particular metric is not in the CAC, but is a more encouraging number. Mr. Soileau said that over the last several years, over one million square feet of conditioned space has been added to the campus, but the overall GHG emissions have remained relatively stable. This means that the GHG emissions per square foot has gone down fairly dramatically over time. There was some discussion about what metrics are the most useful in looking at sustainability goals. Mr. Mouras reminded the committee that a very large portion of the GHG emissions for the campus come from the electricity that is produced by AEP, and VT has no influence over the energy mix that AEP uses. Mr. Chermak asked what the impact would be when the steam plant converts to natural gas. Mr. Avagyan said that the GHG reductions will be fairly significant. Right now about 30% of the campus GHG emissions come from the coal burned in the steam plant. Mr. Avagyan estimates number will drop down to about 15% after the conversion. Mr. Mouras mentioned that the first step of the conversion is the dedicated gas line, which is currently being installed on campus. This will allow Virginia Tech to use more natural gas than in the past, and this line is projected to go online in spring 2016. Mr. Avagyan said that considering the huge additions to campus, Virginia Tech is doing quite well, especially since most of the buildings added are labs which are very energy intensive. Mr. Cochrane added that most of the new buildings are rated LEED Gold. Mr. Chermak said that the committee might consider updating the goal to something that might be more easily reached. Mr. Mouras said that he thought the current GHG goal was very demanding, but might be a “reach goal” that could be worth keeping. Mr. Cochrane said that the goal was reviewed in 2012, three years after the original CAC, and reminded the committee that the goal can be updated and reviewed any time, given enough time. Mr. Lowe wanted to thank Ruben for his work. Mr. Chermak asked for a copy of the slides so he could share with his students.

b. Reusable To-Go Program: Millie Smith

Ms. Smith gave a review of the upgraded reusable to go program in the dining centers on campus. As of the fall semester, there are 3 OZZI machines where students can return their containers. Residence Life and Student Government Association provided a reusable to go container to each student living on campus this year. Additionally, there was a 10 cent charge added to all compostable containers (single use) if students use that option. Ms. Smith said the impact of the charge was not as high as Dining Services as they had hoped, probably because the charge is still very low. However, Dining Services is averaging about 3,000 reusable meals per week, which will total over 50,000 reusable meals over the whole semester. There are hopes to grow the program even more for next year with the help of the Green RFP program. Mr. Cochrane reminded the committee that the new OZZI machines were paid for by the Green RFP last year. Knowing that this would be a good program to grow, SGA opted to fund the reusable containers for the program.

Next Meeting; January 25, 2016 - Room 325, Burruss Hall

Adjourned 2:57PM

Respectfully Submitted,
Emily Schosid