

ENERGY AND SUSTAINABILITY COMMITTEE MEETING

April 25, 2016

Room 325, Burruss Hall

MEMBERS:

Members Present: Steve Mouras, John Chermak, Denny Cochran, Jason Soileau, Ruben Avagyan, Rob Lowe, Allison Homer, Bruce Obenaus, Melvin Amos, Samuel Gittelman, David Mellichamp, Katie Reaves, Debbie Greer (for Dwight Shelton), Kayla Smith (for Sherwood Wilson), Devita McCullough-Amal, Frances Keene.

Members Absent: Tim Baird, Sean McGinnis, Richard Benson, Chris Kiwus.

Recorder: Emily Schosid.

Guests: Emily Schosid.

1. Welcome & Introductions E&S Committee Members

Mr. Mouras called the meeting to order at 2:00PM.

2. Approval of Proposed Agenda

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

3. Approval of March 28, 2016 Minutes

Mr. Mouras asked for changes to the March 28, 2016 minutes. Mr. Cochran noted that item 4A in Old Business: Ms. Sharma asked if all of the Green RFP projects from AY 15 had been completed. The minutes recorded that Mr. Cochran's answer was yes. In fact, four of the five projects were completed as of the March 28 meeting. The fifth project, the solar table installation, was completed on April 20 during Earth Week events. The motion to change this in the official minutes was passed. Receiving no other changes, the minutes were approved with the single change.

4. Old Business

a. Campus-wide Sustainability Outreach: Emily Schosid

Ms. Schosid reviewed the sub-committee meeting last week. She then summarized the year-long effort. She reviewed the various options that exist going forward with the engagement effort for the Committee. She then reviewed what resources would be needed for the various options. She then asked for feedback or ideas from the committee, or people who would be willing to take a leadership role going forward. Mr. Amos suggested that bullet points two and three ("combine efforts in one working group" and "offer information sessions about sustainability efforts to departments and offices") would be a good combination together. Mr. Obenaus agreed, and suggested that the single working group's focus should be determined ahead of time. He recommended Alternative Transportation as a starting point since the focus group was well-attended and engaged. He finished by saying that if a reminder went out at the beginning of next semester, getting invitations to present about sustainability at various departments would be doable. Ms. Homer suggested that going forward with the five planned focus groups would be her preference. She thought that if faculty and staff who are already working on the various issues—through research or teaching—were contacted to lead the groups, it would be a good way to boost attendance at the working groups and get things done.

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b. Energy Update: Ruben Avagyan

Mr. Avagyan gave an update on the 5-year energy plan, phase 1. On the North Chiller Plant, \$1.8 million was spent, and he is expecting \$290K in energy savings every year. Energy audits in the top ten energy hog buildings found \$1.15 million in energy savings costing \$3.6 million in total investments. Three steam meters were installed on campus in December, and another 12 will be installed this summer. There is no direct energy savings attributed to the steam meters, but having more information about steam use will certainly lead to more efficient use of fuel and resources. In the retro-commissioning project, \$67K in annual energy savings were identified for a total investment of \$179K, with a simple payback of 2.7 years. An energy management software has been identified and purchased. Integrating the software with the energy hog buildings will be complete in the late fall or early spring next year.

In addition, 34 buildings were surveyed for steam trap tests. In addition, 12 buildings were surveyed for pipe insulation needs. About \$60K in annual savings were identified, just for adding insulation to steam pipes. Several other ongoing efforts are showing positive results so far, including adding stickers to fume hoods and thermal imaging of several buildings on campus.

Construction on the larger natural gas line was completed in February. Two boilers were upgraded to use more natural gas. A third boiler will be upgraded over the next 5-6 years. Mr. Chermak asked who keeps track of the changes in emissions on campus. Mr. Avagyan said that he and Mr. Lowe keep track of greenhouse gases, but permitted emissions are kept by Environmental Health and Safety. Mr. Avagyan noted that the CO₂ emissions coming from the steam plant would be reduced by about 53%. Mr. Mouras noted that the steam plant only provides about 15% of Virginia Tech's electricity, so the overall reduction in campus emissions will not be very large. Virginia Tech still purchases its electricity from a third party (AEP), and so the campus emissions are beholden to the energy mix of that company. Mr. Chermak suggested that a big PR push should go out about this change. This is a great project that has gone forward. Mr. Mouras said that some of that is already happening—there will be information about this conversion in the Sustainability Annual Report, which goes to the BOV every September. Mr. Avagyan noted that AEP has increased its use of lower-carbon fuel sources over the past decade or so.

Mr. Avagyan then went on to discuss the design standards for energy efficiency. The draft “manual” has been completed, and are undergoing review and revisions. Mr. Mouras noted that these design standards would be for all new buildings and major renovations. On top of all of this, Mr. Avagyan and his team is putting together a website that discusses Energy and Utilities, and showed a preview of the site map and design. Mr. Amos asked what the page about Energy Education would be about. Mr. Avagyan said that the page is still being developed, but would be easy facts about how different energy systems on campus work, like the coal plant, chiller plant, and others.

c. Earth Week Update: Emily Schosid

Ms. Schosid gave an overview of the various events that happened during Earth Week 2016. Mr. Chermak asked how the talk at the Lyric went, as he was unable to attend. Ms. Schosid did not attend, but Ms. McCullough-Amal said that she was present. She said the talk was an hour long, very crowded, and mostly high-level information. She offered to send her notes from the talk to the rest of the

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committee. Mr. Chermak then asked what the cost differential was between a solar table and a regular table. Mr. Mouras said that a normal table costs about \$1000, while a solar table costs about \$9000. Mr. Cochrane offered that the solar table event with President Sands was an excellent event with many important administrators present, where sustainability was the focus.

5. New Business

a. Eikoh Around the World: John Chermak

Mr. Chermak discussed a program to get students more engaged with what is going on with global sustainability. One idea that came to him took a cue from *Flat Stanley* concept—take Eikoh around the world to integrate ideas about sustainability. For example, Mr. Chermak took Eikoh down to New Orleans to look at flooding issues and climate over time. Some students took Eikoh abroad to several different countries, and integrated him image with energy and sustainability projects abroad. Mr. Mouras noted that this was another good opportunity to mix classroom projects with university initiatives. Eikoh is the mascot for the Office of Sustainability.

b. Ytoss Update: Denny Cochrane

Ytoss is a program where students moving off campus donate their unwanted items to the YMCA instead of throwing them away, like they typically do. The materials are kept over the summer, and resold to students at deeply discounted prices. Collection takes place from May 6-13, 2016. The Y will be getting several new signs—one of the projects in the Green RFP for this year was to fund Ytoss signage. Mr. Cochrane encouraged committee members to volunteer their time. Mr. Avagyan asked if there were collection points off campus. Mr. Cochrane said that the YMCA tried it in past years, but found that it was hard to come up with the money and people to make off-campus collection happen, with minimal results. Mr. Chermak suggested that the big push be for students off-campus to bring materials on campus.

6. Open Discussion

Mr Mouras asked how we can improve the Energy and Sustainability Committee meetings for next academic year. Ms. Reaves asked if there could be more opportunities to volunteer. She said that Ms. Schosid's call for volunteers at the beginning of this meeting was one of the first opportunities she had seen. Mr. Chermak asked for more advanced notice on upcoming events, so that he could plan to attend and tell his students to attend as well. Ms. McCullough-Amal said many lectures that she has attended are mostly filled with faculty, so they are obviously engaged. Perhaps the committee could do more to engage with those faculty, since they are willing to participate in events. Mr. Amos asked if PDFs can be sent out of the PowerPoints used during each committee meeting. Mr. Mouras said that doing so would be easy to do, and would send out the PDF of this meeting's presentation. Ms. Homer asked for a section at the end of each meeting's agenda about upcoming events. Ms. McCullough-Amal asked for communication on broader sustainability events across campus—not just events coming out of the Office of Sustainability. Mr. Mouras said that he did not want to abuse the email list with every event, but we can send more notices if that is what the committee wants. Mr. Chermak said that perhaps the committee members can opt in or out of being on an email list that informs them of upcoming events. Ms. Reaves said that being on such a list would be helpful, so she can send notices out to about 60 people. Mr Lowe asked how people are chosen for the committee, and whether it possible to get very dedicated members for next year. Mr. Mouras said there are several ex-officio members who return every year. Every other member is chosen by their respective governing groups.

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If there are people who have shown interest, Mr. Mouras will pass those names along to the governing groups, who can use that information in their selection. Mr. Cochrane asked if there were graduating students. He wanted to thank those people rotating out of the committee for their service.

Mr. Mouras thanked the committee for their work and attendance during the year, and wished them all a happy summer.

Next Meeting; September 26, 2016 - Room 325, Burruss Hall

Adjourned at 3:04PM

Respectfully Submitted,
Emily Schosid