

Western Washington University Associated Students
Green Energy Fee
Tuesday, February 12, 2013 **VU 460**

Present: Katie Savinski (Chair, VP for Student Life), Victor Celis (VP for Academics), Grace Wang, Nina Olivier (AS Environmental & Sustainability Program Associate Director), Sadie Normoyle (AS Green Energy Fee Education Coordinator), Regan Clover, Jacob Lesser, and Ashley Selvey. *Absent:* Nicole Brown and Ed Simpson

Advisor: Kevin Majkut

Secretary: Kaylee Galloway

Guest: Representatives from all four projects

Katie Savinski, Chair of Green Energy Fee Committee, called the meeting to order at 12:04 pm

I. CALL TO ORDER

II. APPROVAL OF MINUTES

III. ADDITIONS/ CHANGES TO THE AGENDA

IV. Q&A

A. SEED

Melody spoke from the SEED project.

1. How will the students on campus directly benefit from this project?

She said that the team wants to use social media and discovery days to reach out to students. She said that there would be a blog on the rooms and that students living there could post what they are doing to be sustainable. She said that way it can be an interactive place for students on and off campus to know about SEED. She said that the team is hoping to raise awareness with new students at discovery days.

2. When your stakeholders signed your proposal, they didn't provide any input. How do they feel about your project?

She said that there was no input from the stakeholder because the signatures were rushed and there was not enough time. She said that people are eager for the project. She said that the team has talked to people who have helped.

3. This sounds like a lot of work for the students moving into the SEED dorms - will these students get a discount? Or how will they keep motivated?

She said because they are a discovery room day, there will be a \$1,000 discount for the students. She said that the students living there can take turns posting on the blog. She said that the team had hoped for two rooms, but that it was decided that there would only be one room. She is hoping to expand it in the future.

4. Do other dorm rooms in BT have portable cooking equipment? If so, how often are they replaced? a) It doesn't seem very sustainable to replace the cooktop and toaster over every two years, b) If portable cooking equipment in dorm rooms are replaced every two years, what are those costs for the standard equipment, and who will pay for the replacement costs of the new equipment?

She said they have 4 burner stoves in BT. She said that the appliances are outdated. She said the product the team wants to put in now is a smaller more conventional oven. She said they the team said 2 years because that is what the warranty said. She said that she knows someone who has been using it for 4 years now.

5. Will the SEED rooms monitor data be included in the new buildings Dashboard at all?

She said that it has been written to include data in the dashboard, but that nothing has been

decided. She said that the team really wants to.

6. Why is there a priority for eco-reps? Isn't one of the goals of the SEED rooms to teach students about sustainability? If so, wouldn't it be better to put students in the rooms that are less conscientious about sustainable issues than the eco-reps probably are?

She said this was a controversial issue within the group. She said they decided to do eco-reps because they are already motivated and knowledgeable of the issue. She said that it would be best to have one eco rep and one who is not. She said that way the other student can learn.

B. Dashboard

Greg spoke from the Dashboard project

1. How are the students directly benefitting from this project?

He said that there is an improved energy IQ. He said that it is reducing the operating costs, which should translate to lower student fees. He said that there will be benefits to many students through direct participation.

2. Are the VU and Ree Center the best buildings to install the meters? Students will have very little personal control over energy consumption in these buildings. Wouldn't there be a bigger student impact by installing in more dormitories where students have control over their own energy consumption? Also, the Ree Center is already a pretty efficient building. It is LEED certified. An earlier study (attached) on energy usage in the Ree Center puts 53% of electricity usage for HVAC and 27% for lighting. Lighting and HVAC are already on timers in the building to go on and off at the appropriate time based on the buildings schedule. Reducing the 27%

He said that the VU and the REC are the biggest energy consumers and so a small percentage of energy savings makes a large difference. He said that that the goal is to reduce Western's carbon footprint. He said that the VU and REC Center have mixed ownership loads. He said if the loads can be segregated, then the buildings can be metered, which can help the direct payment. He said there are other green energy fee projects that can use the dashboard.

3. Since you are removing the Solar Demo Kiosk, will you be incorporating the information into the new dashboard? 1) What will happen to the old Kiosk?

He said that they would integrate information into the dashboard. He said that he needs to talk to the stakeholders about what to do with the kiosk. He said that it could be repurchased for another project.

4. Will you be building an API for all of the sensor data that can be consumed by other apps/student projects on campus?

He said no, because there is enough to do with the screens. He said that if people want the info they can ask

5. When sub-metering a building, how have you determined on which circuits to include meters? How many meters do you intend to include in each building?

He said the team is trying to capture the main building and then work on subsections. He said they are also trying to work on discrete buildings. He said that different facilities have different things wired. He said that VU has 10 meters, REC Center has 4 meter, and BT, between East and West, has 25 meters.

6. You mention developing a mechanism for measuring water and refuse. Is that part of this proposal? I know existing sensors for fluid measurements are pretty expensive. Can you please elaborate on what you mean by "a mechanism will be developed"?

He said that it is a part of the proposal. He said they are looking for a way to do it without metering. He said that they are going to work with the vendor to figure everything out, he doesn't know how at this point.

7. My understanding is that you are asking for an additional \$9,274 on top of the \$135,000 for additional maintenance and troubleshooting. A few questions regarding that request:

- 1) There is a line item for Technical support from Schneider. I assume this fee is already

being paid for by FM. Will the total fee be increasing because we are adding more buildings, or are we being asked to subsidize an existing cost? 2) \$4,250 is budgeted for replacement of meters after fifteen years, correct? What kind of warranty do the meters have? Shouldn't we consider funding replacements closer to the meters end of life, rather than 15 years before they are expected to expire? Or am I not understanding the line item? He said the \$9,274 was included in the bottom line. He said they are doing matching fund to update the server. He said that it costs \$12,000. 1) He said yes, and that the GEF proposal is requesting for year one that it would pay its prorated share for the pilot buildings. He said that all the costs would go into one, and then it would be distributed based on prorated share. 2) He said that the meters are electronic so they only have a 5 year warranty. He is hoping it to last 20 years but that they will run them until they do not work anymore.

Wang wondered if the kiosk could be donated. He said that they see if someone else can use it then it goes through the surplus sector to see if it can be donated or purchased. Celis asked about the benefits and lower fees and what the timeline would be that. Greg said that if GEF funded the initial cost, the savings can be around 45% and that it would be net savings by the first year. He said that there have been projects in the past that have returned within the first couple months. He said that it depends on how the AS wants to manage it. Greg said that in terms of the owner form approval, the student REC center has not signed yet. He said that he is in the process of talking to them about the facts, but they might be backing out of the project. He said that the owner form has been a great way to be clear about obligations. Greg said that he has given a few alternatives, and thinks that Fairhaven and Ridgeway would both be great locations. He said that they could meters in with the project. Savinski said that it is budgeted to replace the equipment after 15 years, and she wondered if it would be detrimental to the project if that was not guaranteed. She said that the GEF might not be around to pay that. Greg said that they would understand if that it is the count. He said that it is reasonable to say that the GEF couldn't fund it.

C. Western SOLutions

Steve and Brian spoke from the Western SOLutions project

1. How will the students on campus directly benefit from this project?

Steve said the monitor would help students better understand solar energy on campus. He said that it will increase the awareness of GEF on campus. He said that students will be thrilled that their money is going towards solar energy. Brian said that the project wants to raise awareness of the GEF so students know they can be a part of projects too. He said they have spoken to professors who have tried to incorporate it into course.

2. How will this project tie into the Dashboards?

Steve said that the project will be a sub-metering system under the recreation metering system so the information should be available on the same website.

3. Can the purchased meter be measured automatically and more frequently than once a week? Ideally the meter would have an interval of minutes (15?) and tie-in to the new dashboard system. Is this possible with the current meter you are looking at? If not, are there other meters that can measure solar water usage in real-time and report over a network and at what cost differential?

Brian said that it can be metered more frequently such as every hour automatically. He said the cost would be around \$6,000. He said that they do not have any specifics yet, but there is the possibility of having a human recorder such as a GEF intern to store the data. Steve said that there will need to be someone to record all of the numbers for each month so it can be referred back to in the future. He said computers do not necessarily have the memory to store all of the data.

4. What kind of warranty do the evacuated panels have? If one of the evac tubes are cracked

or broken, will there be funds to replace it. If not, can the panel operate with one of the tubes out of commission? And if so, at what efficiency?

Steve said there is a 20 year warranty and after that the REC center can replace them. He said that if a tube cracks, then it won't decrease the efficiency, it will just decrease the output because that tube will not be producing energy.

5. If the project can't be implemented during the summer and is instead installed during the Fall, how long will the pool have to be closed for?

Brian said that if the project was done during school, that the pool might have to be closed for 2-7 days. Steve said that is an estimate, but that construction requires tying into a few pipes.

6. How expensive would it be to add additional panels at a later date if we decided to expand the system?

Steve said there would be about \$6,000 per collector if the domestic hot water is tied into the pool and hot tub. He said it might take \$10,000 to tie into the domestic hot water, but at a later date it might cost \$15,000 because there are most costs including having the administration facilitate that and getting into the building. He said it would be more expensive later.

Lesser said that if the data is automatically saved then why does there have to be a human recorder. He said that it can be automatically recorded. Clover suggested having the data be downloaded into a database. Lesser said having it downloaded to a data base is a real possibility.

D. Environmental Outreach Hydration Station

Clarissa and Gerald

1. How will the students directly benefit from this project?

Gerald said the EOHS kiosk is different because it is more interactive. He said that it is for the students and a visual representation that Western is becoming more environmentally conscious. Clarissa said that it has an environmental education component that will highlight resources that are available to students. She said it will also be a way to connect and collaborate. Gerald said that it also provides students with sustainable water and that it is the 4th hydration system installed.

2. How will students know that the touch screen is interactive? (versus a static display)

Gerald said students will know that the screen is interactive because there will be a sign above the dashboard that explains what the dashboard is.

3. Will it be clear who is allowed to post on the bulletin boards?

Gerald said there will be a screen on each bulletin board. He said the bulletin board will be in a glass case that is locked. He said that one would have to go to the circulation desk to get access to the bulletin board.

4. Will the sustainability map be a static print map, or will it be an online interactive map? Will you be including the sustainability data on the new sustainability layers of the Campus Map?

He said the sustainable map can be printed in the case or a part of the dashboard touch screen monitor or both. He said it will have all of the updated sustainability projects at Western.

5. Will the hydration station usage readouts be available online? Through the dashboard project?

He said that it will be a part of the dashboard website. He said that it will be interconnected.

Clover clarified #3. She said that it indicates all of the different panels on the kiosk and who will be providing the updated data and how frequently. She said the library staff is in charge of the book shelf. She said there will be sustainability events that the Office of Sustainability will update. She said there will be a club one too that will be updated by the Environmental

office. Clarissa said the library is really excited for this project. Lesser wondered who would develop the initial content for the static map, the bulletin board, and the dashboard . Gerald said that the dashboard content will come to the dashboard team. He said the map is already designed and then the sign shop will be working on the design and layout too. Clarissa said the location is great because it is very visible.

V. DISCUSSION

A. Project discussion

Savinski said Clover will not be here for the next meeting and that the committee cannot make any decisions within the next 10 minutes. Lesser said that the REC center needs to figure this out. Wang said that she would like to see all the projects move forward. Savinski said she sits on the REC center advisory meeting. She said there was a presentation and everyone seemed in favor of the project. She said people seemed in favor of the solar panels and having them there as a showcase of sustainability. She said that it upsets her that the solar panels on the REC might not happen. Clover was surprised that SEED was down to one room. Several committee members were disappointed because they hoped for two. He said by building a more flexible application program interface (API), other projects can tap into the information. Celis said he is thrilled to see the collaboration between the library and the students with the EOHS project. He said that is how it should be with the projects and that this projects just “clicks”. Wang wondered if there should be a meeting next week where Majkut could update the committee on the budget. Celis said that he spoke to Majkut and it doesn’t seem there will be an issue to fund all of the projects. Savinski said there would be a meeting next week.

B. Small grant info session

Clover said that there will be the first small grant info session this week. She said Normoyle has been going to classes to educate people. Celis said he told the Faculty Senate about it. Clover said there will be two meetings on Wednesday and two on Thursday, each 30 minutes.

VI. NEXT MEETING DATE

February 19, 2013

VII. ADJOURN

The Meeting was adjourned at 12:56pm