1. Updates

- a. Campus as a Living Lab Workshop
 - i. The purpose of this workshop was to integrate University sustainability research with campus sustainability. A lot of the work we're doing is useful to research, and can use research to support campus sustainability development.
 - ii. There were extensive discussions from current people involved in campus sustainability research who used existing programs as a foundation for research.
 - iii. iSEE has created a fund to offer financial support for faculty developing large-scale grant applications that integrate research, education, and campus sustainability.
 - iv. The primary purpose is to make faculty know more about campus sustainability. While campus has done a lot, the faculty might not know as much as they could.
 - v. iSEE is finalizing development of the program to establish how the fund procedure will work. Facilities and Services will be working with iSEE on this process to ensure full buy-in.
 - vi. Morgan are we doing a roadshow to present this to people? Ximing yes.
 - vii. Morgan this will help shape faculty awareness of the Climate Action Plan.

b. Sustainability Week

- i. Morgan there is a lot going on. The Campus Sustainability Celebration featured posters from all the SWATeams, tabling from sustainability-affiliated groups, speeches from campus sustainability speakers, and presentation of the ECIP Awards.
- ii. The ECIP Awards provide plaques and funding for top performing buildings that have reduced their total building utility usage.
- iii. Micah presented briefly about the My Next Steps campaign as well. We currently have several hundred pledges for students, faculty, and staff to find ways to live more sustainable lives.

c. SWATeam Updates

i. Micah presented the SWATeam Updates as provided by the SWATeam Clerks / Chairs included at the end of this document

d. Green Labs Coordinator

- i. Karl Helmink and his employee Paul Foote have a lot of interest in very actively participating in the development of this program. Paul and Ximing have met now to discuss next steps.
- ii. Ximing this is the right fit for our campus, and a lot of our peer institutions have this sort of program already.
- iii. One current question is how we plan on funding this program. Currently, there is no funding dedicated to energy conservation that could be routed to this program. Paul found another document from another institution that has made an argument that if the green labs program goes well, the University should take the savings and put it into the position since it saves indirect costs. A number of other peer institutions have been benchmarked.
- iv. Morgan if we do the initial project as a pilot, it shouldn't be that hard to get it funded. We need to define what it should do, what the outcomes would be, and what the goals would be moving forward. As a one-time funding option, the Carbon Credit Sales Funding or SSC could potentially fund it. Those would be one-time-only options to establish the position.
- v. One question will be post-pilot where the long-term funding comes from.
- vi. Matthew what is the pilot's goal? Are we laying groundwork or are we going for big wins from the start? Depending on the source of funds, we need to connect the expenses to the benefits. As we move to a new model of financial billing for offices to pay for their own utilities, there are some new options of where the savings come in. The timeline aligns well.
- vii. Ximing we also need to get some more guidance from the VCR's office as far as the specifics of where this happens, and if green labs activities have negative externalities with lab safety.
- viii. Matthew would the Green Labs Coordinator dovetail with safety activities? The argument is that it should be reporting to the VCR's office so the safety piece is centralized.
- ix. Ximing the current green labs coordinator at a peer institution started by working in the safety side of campus and is now more motivated for green labs.
- x. Larry Is this *just* labs? There's a massive amount of money in fume hood maintenance that we can get from the easy wins in the spaces being utilized.

- xi. Matthew This needs to get eased in, but there is a path to funding.
- xii. Ximing We need to communicate with more lab managers. Ximing will meet with the VCR's office and we'll go from there.

2. Solar Farm 2.0 Discussion

- a. Sean I don't understand these numbers as well as I'd like to, but I support bringing this to the Sustainability Council.
- b. Matthew I need to have the confirmation conversation with ACES to know if they are officially on board. We have had this conversation already but want to make sure everyone feels included.
- c. Morgan I think we take the information we have and start working on our assessment. I just want to make sure this group is on board so we can get the ball rolling on this and move it upward to the Sustainability Council.
- d. Sean the cost of land expansion should be included in the analysis.
- e. Sean is this a delivered cost vs a delivered cost or a delivered cost vs produced cost? This needs to be an apples-to-apples comparison. Morgan staff did an NPV/ROI analysis that used the same capital ROI that we use for other utility projects.
- f. Morgan I will draft the basic assessment and then go around to the iWG to get your commentary. This and Petascale Offsets are the two key items being discussed at the Sustainability Council.
- g. Morgan will take steps to move things forward and we'll go from there.

SWATeam Updates – 10/27/2017

Transportation: We have set 3 goals that we plan on working on this semester:

- 1. Exploring options for offsetting air travel
- 2. Pursuing an intermodal transit survey one for students and one for staff
- 3. Assessing the feasibility of various options to reduce emissions from the campus fleet.

One of our faculty members, Julie Cidell, has created a survey - which will be taken by students next semester - to evaluate their transportation attitudes and behaviors and how they change over the students' time on campus. We're excited to see the results and use them for shaping our future work.

PWR: We provided feedback on the CAM Paper Purchasing policy and plan to work to help ensure faculty understand and comply with the policy once implemented. We are currently working on expanding SmartWay to other companies who deliver to campus (currently only Dining is a member), as well as expanding EPEAT and green cleaning products. We also plan on helping out with rearranging outdoor and indoor trash and recycling bins.

Water/Stormwater really wants to think about what it would take to plan a large-scale student-conducted water audit, possibly with an app made by CERL a few years ago. Also, because the Hydrosystems Lab will be renovated, a greywater system would be good to be in design plans. Regarding cooling towers, I made the map of towers into an Excel sheet and sent it to Morgan so she can figure out which ones are still standing.

At the last **ALUFS** meeting, there was some discussion about making a food processor on campus more publicly available, but I don't know what exactly it is. We also needed to find who has done any research on nitrogen runoff.

ECBS has been super busy already. A few highlights:

- 1) Gopal Pareek, Research Assistant from DIA, who is working with Morgan to support the SWATeams joined us on October 18. We gave him some suggestions for following up on energy conservation.
- 2) We had Mike Marquissee from F&S join us at the October 18 th meeting to explain the F&S budget for energy conservation. If costs to the state budget can be avoided, then the savings can be redeployed to conservation projects. There have been some major budget hits, for example, loss of Department of Commerce and Economic Opportunity (DCEO) grants, a major grant source for energy reduction projects.
- 3) We are helping to nudge along the proposal for a Green Labs Coordinator, which came out of a SWATeam recommendation from our team.
- 4) We are considering what we want to develop into recommendations for the iWG.
- 5) Also, add in that we are fully supportive of the ILO efforts and hope to have someone from our team at as many of the upcoming ILO's as possible!

EGEN is currently looking into the following topics:

- Expansion of on campus solar. (Green/brown space vs rooftop vs parking / What is the most cost effective way to increase solar on campus?)
- Clean energy PPA. (Develop a recommendation to explore pricing for another clean energy PPA. This should be a long term PPA. Anything less than 10 years does not provide a predictable cash flow that stimulates investment in future renewable energy development and therefore should not be considered.)
- Carbon capture *Setup meeting with Kevin O'Brien to hear about the ISTC projects. Setup meeting with Sally Greenburg to hear about sequestration at ADM.
- Air Permit Could we pursue a more flexible air permit that would allow the campus to test burn various biomass options at Abbott? Setup meeting with F&S Environmental compliance to provide an overview of the campus Title V air permit, and review the options for burning biomass on campus.
- Geothermal: Xinlei and Forrest both have expertise in ground source heat pump systems. What opportunities can we pursue on campus to implement GSHP technology? New construction seems preferable because old buildings are integrated into steam system on-campus.