**eGen SWATeam Meeting 07**

February 5th, 2019

3pm-4pm

NSRC 376

**Attendees:** Yu-Feng Lin (chair), Andrew Stumpf, Tim Mies, Mike Larson, Gabriel Mishaan, Jonah Messinger, Scott Willenbrock, Taylor Holin (clerk)

1. Approval of last meeting’s minutes
2. Review of last meeting
3. Objective 3.4 Discussion
   1. Grant for Petascale Computer (10 megawatts, 20%) is expiring at the end of the year
   2. Expectation is that there will still be a significant load, but reduced with computers taking its place
   3. Is this objective going to stay in the 2020 iCAP? - May be worth getting rid of
   4. Who do we talk to regarding this Objective?
   5. May not be any progress towards this Objective anyways
   6. Why is Petascale separated?
   7. Could have language for developers regarding it for new buildings, or more retrofits? Grants?
   8. ACTION ITEM: make this a ongoing discussion in future meetings (~15 minutes per meeting)
      1. Google doc for ideas, shared with whole team
   9. ACTION ITEM: Email to Micah and Morgan -- where are we on this one? What do you want us to do about this? (cc team on this email)
4. SCC Meeting Discussion (Andrew Stumpf)
   1. Helping the committee evaluate future proposals, streamlining the process -- Could there be some interaction between the SWATeams and SCC?
      1. Teams could help guide priorities
      2. Ideas for this:
         1. Send a representative from each SWATeam to SSC meetings
         2. Have teams go to an SSC meeting every year to share current objectives, goals, projects
         3. Going over proposed projects at SWATeam meetings for ~10 minutes and seeing which ones we would support and want to push for
      3. Could we mandate that proposals give an energy conservation estimate (instead of having it as an option)?
         1. Most projects already do talk about savings
         2. For some it’s hard to quantify an estimate
   2. Overall, it’s a good idea to get SWATeams involved
   3. SSC meeting next week, Gabriel will bring up this possibility then and report back
5. Purchasing clean energy discussion (Mike Larson)
   1. To what capacity does it make sense to purchase solar or other clean energy?
      1. Big picture
   2. Power Purchase Agreement
      1. No real impact on operations
      2. Financial contract
      3. We must use what we buy without selling back
      4. If we have extra energy, we’d have to sell it back
         1. How much do we buy energy for?
         2. How much sold back? For what price?
      5. Risks involved
   3. Idea: have financial transactions go through an off-campus node (Scott Willenbrock)
      1. Times of the year we’re making a profit, at some points making a loss
      2. Making it purely a financial decision
      3. Financial aspect needs to be approved - could be difficult
      4. New area, needs more explanation
   4. Process
      1. F&S looks at campus demand for electricity, what do we project to generate, assess how much solar power without overfilling and having to sell a ton back (assessment)
      2. Finances looks at projected costs vs historical actual costs; how do the two compare?
   5. Example -- MIT
      1. Looking at them and their agreement
   6. We purchase 200,000 megawatt hours; 25,000 megawatt hours from off-campus solar, 25,000 on campus; looking to purchase ~150,000 megawatt hours
      1. Petascale decrease may impact needs, but unsure
6. Discussion on restructuring of SWATeam
   1. Should financial people be brought onto our team in the future to provide another perspective?
   2. Bringing their expertise could help with iCAP and future recommendations
7. Solar Farm 2.0 Update
   1. Is moving forward
   2. Looking to do this instead of a Power Purchase Agreement
   3. No new proposals
8. Solar Purchase Agreement discussion
   1. How is buying all of the solar different that buying a rec?
   2. Power Purchase Agreement allows a new farm to get built
   3. If this is purely a financial transaction, should be look at that? (rec)
   4. Power Purchase agreement that allows the creation of a new solar farm
   5. It’s an investment in solar for Illinois
   6. We will find that financially, it will be a good deal for us
      1. Fixed price, shielding us from inflation
      2. For this investment, do we get credit for carbon emissions? No.
      3. Reason to do it: Facilitating the creation of renewable energy for the state of Illinois, even the county of Champaign
         1. Big considering this is new in Illinois
         2. Showing a school making a purchase for that amount of solar is huge and setting a precedent; good for public image
9. Objective 3.1 discussion
   1. Any progress on this?
   2. What do we do with this?
   3. Recommendation made a few years ago (2016) to engage a consultant to propose a plan for electrifying our heating, getting us away from heating with steam, and moving us towards heat pumps
      1. Submitted, rejected by F&S for financial reasons
      2. Ended there
   4. Improve and then revisit
   5. Main objective to consider and discuss
   6. Continue this goal, keep exploring with new technology
   7. Exploration into batteries? Too expensive still
   8. We need technology that will help with inconsistencies with nature; What gets us through the night, polar vortexes, etc.
      1. Where are we drawing the box? We are a ways away but we still need to acknowledge the issues; looking at all the factors and then deciding
      2. Running Abbott at a lower capacity? Inefficient, costly - if we didn’t co-generate, we would lose our efficiency and it would cost us more
         1. Financial issue
         2. Currently Abbott is cost-effective
10. Carbon tax on campus discussion
    1. New budget structure may be more effective than implementing a carbon tax
    2. We could potentially layer a carbon tax on top of this
    3. When you make individuals responsible, they become more aware and reduce inefficiencies; creates a behavioral change
    4. Departments will be responsible for paying for everything (electricity, heating, etc)
11. Purchasing may change in the future, so adding a financial expert to this team may help with this
    1. Don’t know how needed it is since we make more general recommendations and pass them along, but it still could be helpful
    2. Helpful to have a designated contact for this to broaden expertise (3.1)
12. 3.2 and 3.3 Discussion
    1. Can speak to those objectives with clarity
13. Action Items
    1. Look at 2015 iCAP, review and take notes on potential revisions to help create initial draft
    2. Create Google doc for Objective 3.4 discussion
    3. Email Micah and Morgan regarding 3.4
    4. Send recap of Thursday’s iWG meeting to team (Jonah)
    5. Get info from 2016 recommendations, put in box or google docs (Scott, Taylor)
14. Next meeting: Tuesday, February 19th @ 4pm
15. Adjournment