**Energy iCAP Team Meeting**

Wednesday, March 10th, 2021

9:00 am via Zoom

*Members in attendance: Bill Rose (Co-Chair), Andy Stumpf (Co-Chair), Paul Foote (Staff), Tim Mies (Staff), Tugce Baser (Faculty), Brinn McDowell (Student), Kimmy Chuang (Clerk)*

Modeling for Energy Code Compliance Update

* Submitted to the iWG

Building Envelope Pilot Project Update

* Stacy Gloss has been connected with Peter and Matthew
* Project will start in April at the Transportation building
  1. Scheduled for renovation using deferred maintenance funds. Stacy, Paul, and Bill took a tour of the building and think it is a great candidate.
  2. University has little experience using blower doors, but many efforts are moving towards airtight-ness in buildings
  3. Energy reduction could be between 30-40%, which is good

[F&S Energy Management Plan](https://fs.illinois.edu/docs/default-source/utilities-energy/final-energy-management-plan.pdf?sfvrsn=92a1d8ea_4)

* Sets a near-term schedule for 50% reduction in energy utilization by 2026, **which would be about 14 years ahead of the iCAP schedule**
  1. Funding hasn’t been granted, but the plan will likely be used to secure funding for retro-commissioning on auxiliary units
* Bill thinks some of the calculations may be a little sloppy but is willing to overlook that for the purpose of making the University aware of the costs and projects needed to achieve carbon neutrality.
  1. Students per square feet appears to be hard to calculate when measures of campus square footage vary between different plans.
  2. *Paul*: If you include 640 buildings, that will likely be different because F&S only counts around 400-500 buildings
  3. iCAP estimates campus to be around 22 million square feet
* F&S Plan does include the energy use from the PetaScale Computer, which is different from the iCAP.
  1. PetaScale computer may be coming off-line in the future. There may be other supercomputers at the geography and engineering departments.
  2. 2015 iCAP says there are off-campus users of the PetaScale Computer, which is a possible obstacle to taking it off-line

How should we move on with our Energy Master Plan Recommendation?

* **Paul and Bill will sit down with Rob Roman about the newly released plan and update the team on their findings**. Our goal is to make university aware of the costs of achieving carbon neutrality.
* Mike Larson has said in the past that the cost to abandon steam system for hot water would start at $239 million, but a more comprehensive estimate would be $1 billion.

Energy Efficiency in Residence Halls

* Meeting updates to assist Eco Olympics
  1. Eco Olympics is proceeding with housing following COVID-19 guidelines
* We will be looking for meeting updates online from when Matthew, and possibly others, attended the Engagement iCAP Team meeting

Energy Efficiency in Labs

* Updates from Brinn
  1. Brinn has been focusing on finishing an inventory of all the equipment in her lab. **Brinn is looking for metering equipment** to put in the plugs to measure electricity usage.
  2. **Brinn is finishing an application to the SSC** and trying to decide between applying as a student-led project under $10,000 but isn’t sure yet how much the metering equipment will cost.
* **Kimmy can have a draft recommendation ready by our next April meeting** with preliminary data from Brinn.
* In the past, there have been recommendations for a Green Labs Program on campus, but nothing moved forward. This recommendation would be similar in that we’re suggesting for the University to instill a Green Labs position or director.
  1. OVCR and F&S would likely be the responsible unit for implementing the Green Labs Program, Paul thinks the program administration itself would likely reside in iSEE based on past conversations he’s had with Susan Martinez (OVCRI).

Space Growth Working Group

* **Paul and Kimmy will reach out to Brian Bundren to help develop recommendation for University to address space usage in the hybrid in-person work force** that will likely be the new normal.
* We are doing a lot of conditioning of spaces during the pandemic to ensure proper ventilation and safety so any spaces that aren’t actually being used should be de-commissioned.
* As part of retro-commissioning at Turner Hall, Paul looked at space usage and became aware of places where they could become more efficient. **Administration sent out emails to each of the researchers who were very willing to work with the F&S team and were able to streamline space usage overall**, in addition to making it more user-friendly.
* Through email, Andy noted that the Chancellor and President are supportive of new in-person/remote working arrangements. **In the future, staff could share offices or there could be offices set aside as flexible space** that’s used when some employees are in the office, but not permanent space for any one employee.
* We could look for ways to study activity in spaces by using occupancy sensors that have been deployed in Turner Hall.
  1. Measuring the unused and underspace space in campus buildings as some measure of activities per square foot per month may be weird but could be helpful in raising awareness about this issue.