**Energy Conservation & Building Standards**

*In attendance: Claudia Szczepaniak, Jessica Tran, Karl Helmink, Kent Reifsteck, Marian Huhman, Mike Marquisee, Nishant Makhijani*

1. Introductions with Kent Reifsteck, Director of Utilities & Energy Services, and Mike Marquissee, Business Operations
2. Discussion on feasibility studies—what is needed
   1. Many projects Karl mentioned last week are going to have an audit, which folds in feasibility
      1. Something we could use help on from iSEE is related to upgrading to ASHRAE standards
      2. This is where a research assistant comes in handy
   2. Deadline for proposals is January 15

* *Kent*: Could a feasibility study help with more efficiency with university space?
* Currently looking at a list of buildings, focusing on who is in the building
  + How we utilize space is one of the most important issues
  + How do we incentivize people to give up unnecessary space (e.g., perhaps by taxing the space)
  + We don’t have enough maintenance money to take care of all of our space
  + We should gather data on savings if we decrease our space
  + There’s a fear that space will not available when needed due to hoarding
* *Marian*: Propose for a feasibility study?
* *Karl*: Latch onto UTex/Stanford Green Labs programs
  + Karl will email Kevin Duff—Assistant Director, University Planning and Design (UOCPRES)
* *Kent*: Trying to get rid of deferred maintenance
  + Should have recurring funds towards energy conversation, including ESCOs

1. Discussion on energy monitoring systems
   1. *Mike*: 3 levels of energy data and monitoring:

1) “Intensive”, which is mostly utilized by engineers

2) EBS—utilized by business managers

3) Summary systems, such as Dashboards

* 1. *Mike*: eDNA Billing System—publicly available
     1. *Karl*: Typically 3-year payback but as projects become more difficult, looking at 5- or 6-year payback
  2. *Nishant*: Presentations to offices beginning next month for the Green Office Program
  3. *Mike*: Costs based on square footage
     1. No mechanism exists for turning energy bills into accountability
     2. Summary level is Illini Energy dashboard, publicly available
     3. Each building has electricity, steam, and water, but not every building has real-time metering capabilities
     4. 40 buildings on campus that are connected to central control/dashboard

→E.g., Loomis does not have a meter for electricity

* 1. *Mike*: Use of comparative tool on dashboard, perhaps energy usage by day
     1. *Karl*: Personally more confidence in EBS web
     2. *Mike*: Not as translatable to the general public
* *Discussion about professor in business who did formative research about what kind of info on energy usage people wanted. They wanted anecdotal stories. Wanted translations of energy usage, such as, “This means could light a small town for 10 minutes.”*
* *Marian*: University in New Zealand uses flashing lights when a building passes pre-set energy consumption level—maintains awareness
* *Nishant*: Company Lucid used by many universities. Lucid converts data about energy usage into graphics that are understandable to the public.
  + *Mike*: We would be sending our data to a third party to assess and put up for us—latency and Lucid is expensive (~$50K?)
* *Mike*: ASU Campus Metabolism—product of Lucid
  + Would be interesting to consider behavioral impacts

1. Karl updates on morning meeting regarding NSRC:
   1. Audience (Walters, Merchan, etc.) receptive and open to ESCO. This involves long range planning. This meeting was initial step.
   2. Karl wants to work on growing Green Labs concept
2. Continued discussion on student involvement
   1. *Nishant*: Strive for better focus on cultivating student interest in campus sustainability rather than simply sustainability in general
   2. *Karl*: Student patrol group for campus energy reductions (e.g., turning lights off). Was stopped about 15 years ago because a student was arrested for burglary.
      1. *Nishant*: Issue of campus security, so will sustainability be a priority?
         1. →We don’t have student campus sustainability organizations

* Team tasks:
  + *Karl*: Email Kevin Duff—Assistant Director, University Planning and Design (UOCPRES):
  + *Karl*: Email to ECBS team: Updating on space efficiency issues:
    1. There is probably a list out there with notes about which building should be razed, however this is not public information at this point. I think that I have heard Fred mention this item.
    2. We do see underutilized space on campus, but who gets to make decisions on this? If we do identify this, then what happens? How is the campus engaged on this item?
    3. What happens if we find areas of the buildings that are underutilized, we still have to heat and cool these spaces. We could easily spend too much time sending out F&S labor only to undo the mechanical revisions in say the next 6 months.
    4. Should this type of item be included in the campus mater plan update, or maybe it is in there already? If not, it probably should reside in this area.
  1. *Nishant*: Discussion with Ben about compiling a committee to initiate Green Labs
  2. *Claudia*: Compile one-page document on Green Labs Initiative at other universities
  3. Update from Monica and Dhara next meeting