**ECBS SWATeam Meeting**

April 11th, 2019

TBH 115

1pm - 2pm

**Attendees:** Bill Rose (chair), Karl Helmink, Paul Foote, Ximing Cai, Yun Kyu Yi, Taylor Holin (clerk)

1. Approval of last meeting’s minutes
2. iCAP Chapter Evaluation (Bill Rose’s original edits)
   1. <https://docs.google.com/document/d/1lwsIp1rxTk1zrBz0oaqG6JP7rQKsdqe-OY-2zgifoE8/edit?usp=sharing>
   2. Having specific metrics with recommendations
   3. **Action Item**:
      1. Everyone make and send edits to Taylor within the next week
3. Discussion of the Utilities Master Plan
   1. Some discrepancies between this and the 2015 iCAP
      1. Should be addressed
   2. Two main issues:
      1. In the Utilities Master Plan, there are 11 scenarios outlined for the campus moving forward which project the energy use starting in 2014 and going through 2050
         1. In the best cases, the energy use is at the same level in 2050 as it was in 2014 (no improvement or decline)
         2. In the worst cases, the energy use increases from 2014 to 2050
         3. Due to the projected campus population increase?
      2. Steam generation is praised but that system is difficult to integrate with renewables unless local nuclear is included
4. Discussion of Objective 2.2
   1. We have the highest standards, so the issue is with compliance
      1. Discuss with iWG?
   2. Accountability is a big challenge
      1. Should be done without additional funds
   3. Commissioning
      1. Every project needs commissioning when it’s completed but it may get slighted trying to get things open on time
5. Discussion of Objective 2.4
   1. Eco-Olympics’ impact regarding awareness and behavioral change
   2. Freezer challenge
   3. It’s vital that we have engagement
   4. Nobody invests their time if they don’t have a personal interest in it, hard to get people who don’t care to buy into it
   5. Having a full campaign is the best route
      1. Educate campus community and communicate efforts
   6. Bringing awareness helps bring action
   7. **Action Items:**
      1. Paul Foote to look over and make notes
6. Discussion of Section 3 in the iCAP Evaluation
   1. Coordination between deferred maintenance
   2. More ESCO’s
   3. Air tightness, air infiltration to buildings (energy modeling in buildings)
      1. Airtight buildings work better
      2. Address this in the 2020 iCAP?
      3. Test buildings for this
7. EUI Target (in 2015 iCAP)
   1. If we want to identify the programs that we think will work, that we want to work, we have to look at the energy used, not the energy that is delivered (for 2020)
   2. The energy delivered to abbott does not distribute to all of the square feet that is used
   3. First step: defining the campus
      1. Changing this for 2020 -- “University District” (capturing 96% of square footage)
         1. By doing it this way, we’re putting square footage and energy use together and we can filter by age of buildings, etc.
         2. Provides a metric for measurement, but combining this information with the past iCAP info may be an issue
      2. Putting Petascale back in may take us back. We can get it down but we will need investment and eventually the investment will have to increase
      3. 2008/2019 square footage numbers -- we find that there has been an increase of about 11% from 2008 to 2019 in the buildings that we have had since 2008
      4. Numbers don’t match administration
         1. Our number is going up, not down
8. Discussion of Energy Use Chart (Bill Rose)
   1. Buildings from 2008-2018
   2. But, Petascale came on in 2009 and it uses 12% of total campus energy now but not included in the EUI Target chart
      1. Should not be erased from the chart, should be included since it uses so much energy
   3. Thanks to the ESCO efforts and others, the trend is going down
      1. 50% by 2037 and we’re down below 30% energy use if we can keep the trend by 2050
      2. Except for Petascale and additional energy
   4. Suggestion: reshuffling of data
      1. Needs to be discussed further
      2. Bill Rose working with Morgan White on this
9. Discussion of potential recommendation (Ximing Cai/Bill Rose/Karl Helmink)
   1. ESCO Recommendation: $10 million for deferred maintenance over 10 years
      1. This would be an earmarked investment, additional funds supplied, which will have a payback that we can estimate; not taken from an existing budget
   2. Original recommendation submitted last year but was sent back due to not having enough justification for the money request or an identified source where the money would come from
   3. What needs to be done in order to submit:
      1. Justifying the request, state why the money is absolutely necessary
      2. Finding a source for the money
         1. Should be additional investment, not a rerouting of current budget
      3. Identifying how the money would be used
      4. Identifying the benefits and how it would help the progress in reaching iCAP goals
      5. Prepare for the range of questions that could be asked about the recommendation
         1. Is this going to be the only money request? Or will we need to ask for more in the future?
         2. Is $10 million enough?
         3. Would this money address the entire project or a piece of it?
   4. Responding to the main question: Is this all the money you’re going to ask for?
      1. Is this a down payment? How much will it cost?
      2. We may not be the best equipped to answer this question, but we can help do our part to contribute
      3. We need a group with a different skill-set to answer this
   5. Need to understand that this may not be the last money request we will make
   6. Will require investment by the University
      1. Team would be happy to work with them to begin estimating where this would come from
      2. Main Concern:
         1. If the administration feels strongly about meeting the goals, it will require more money injected into the efforts and not just a redistribution of the current money that F&S gets
            1. Keypoint for 2020 iCAP update
   7. In the previously submitted recommendation, we used examples of successes in the past about where the money could from (percentage saved, percentage gained) but didn’t include a forecast
      1. But it’s hard to be accurate since there are many variables. We can put together charts and maps to help foresee this to a certain degree
      2. Use realistic assumptions based off history
   8. Go over concept at iWG meeting
      1. Revised and submitted as a pilot
   9. **Action Item**:
      1. Ximing to talk to Morgan White and some others to discuss this further
      2. Have recommendation ready and “pilot” submitted by May 3rd (next iWG meeting)
10. **Action Items**
    1. Finding a couple student members (Yun Yi, Ximing Cai)
       1. One current opening
       2. One student (Andrea Martinez) leaving at the end of this year
    2. Make and send edits to Chapter Evaluation sheet to Taylor
       1. Due April 15th
    3. Have a working session with the working group
       1. Talk about recommendation and issues found while reviewing the 2015 iCAP and preparing for the 2020 report
       2. iWG meeting on May 3rd
11. Adjournment