**ECBS SWATeam Meeting**

February 1st, 2019

TBH 115

2pm - 3pm

**Attendees:** Bill Rose (chair), Karl Helmink, Dave Boehm, Paul Foote, Morgan White, Sarthak Prasad, Tom Keller Taylor Holin (clerk)

1. Discussed drafting and timeline for the 2020 iCAP
   1. iCAP Drafting Process: <https://docs.google.com/document/d/134M90hTleJFdwi26wFBeoPxq0ahajYUN4cetGPvTO8o/edit?usp=sharing>
      1. Currently on Stage 1 - evaluating 2015 iCAP to see where we are at the start
   2. 2015 iCAP Goals and Objectives Review:
      1. <https://docs.google.com/document/d/1YSCD-EmLkcYkTdSEUf_0o5tmBkxnAZ-nbC9kDkjUY6c/edit?usp=sharing>
      2. Have feedback by mid-April
      3. Complete throughout the semester to get feedback and progress of SWATeam
2. Freezer challenge (Paul Foote)
   1. SSC Funding Application: <https://drive.google.com/file/d/0B4XOHGt8liIrSk8xYVhFWkVZUjN2cmlSZWhDSU15SFRTb2tn/view?usp=sharing>
   2. ECBS Team agreed to support and encourage the Freezer Challenge
      1. “The Energy Conservation and Building Standards SWATeam has championed and promoted the research and implementation of last year’s pilot program and wholeheartedly support continued efforts to further develop and maintain progress in sample storage management and behavior change initiatives achieved in the Freezer Challenge, further supporting the establishment of campus green labs program, reduce campus energy usage and help meet campus iCAP goals.”
   3. Andrea to submit proposal to SSC
   4. Last year: 60 researchers signed up, 45 labs filled out score sheets and submitted
   5. This year’s goal: $28,000-$40,000 in energy savings for the campus (to double previous achievement)
3. Update: ESCO recommendation from last year (Karl Helmink)
   1. Nothing new to report
   2. Newest ESCO (Chemistry buildings, south campus, Beckman Park) moving into a construction phase - expected to save $2 million a year on utilities
4. Overview of what to discuss for 2020 report (Bill Rose)
   1. Report of source energy and site energy
      1. Which do we report? Both?
   2. Define campus site for energy purposes - What buildings should ECBS (and iCAP) include?
   3. Conduct review of energy code compliance
   4. Introduce budget needs for building energy conservation
      1. 2015 iCAP lacks this, need it for 2020
   5. Review Utilities Master Plan with respect to iCAP goals
      1. Content vs aims
5. Source energy and site energy
   1. Total energy vs energy per square foot
   2. In 2015, we reported source energy (what’s delivered to Abbott)
   3. Goals want to be EUI -- want to keep core EUI goal and have 2020 big picture goals be based on these (Morgan White)
   4. Site side is where we go into per building reports (Morgan White)
   5. Strategies to get to these reductions and see the impacts at a smaller level
      1. Need to look at individual buildings, “sites” to see what is working and what isn’t
      2. Brings us to next discussion topic for 2020 iCAP, which buildings do we include? Exclude?
6. Define campus site for energy purposes
   1. The University District is already defined. Use this outline? Need a boundary - what is our SWATeam concerned with?
      1. Should be inclusive rather than exclusive
      2. Should use the same boundary as water consumption does
   2. GSF given by Utilities Enterprise System (PEI) - where Abbott is sending out energy, but includes non-University owned buildings
      1. Need to figure this out
   3. iCAP says “continuous main campus” - what buildings are included in 23,000,000 square footage?
      1. If we’re already working with a number, then we should work with it rather than generating a new one
      2. What’s within this number, what’s out?
   4. We need to have something clear and tangible so everyone knows and understands what it is
      1. Use the University district outline?
   5. Future meeting with Morgan White and others to get report on campus buildings
7. Discussed EUI
   1. We don’t want to lose main number (EUI), but we need to dig deeper and look at individual buildings, see where we should put our emphasis, source approach doesn’t cut it (Bill Rose)
      1. iCAP identifying space and what’s in, create boundary/outline
      2. SSC funding - their aim is to match the iCAP goal -- looking at this and what definitions will work best for our goals
         1. Could certain working rule out those eligible for SSC funding? Be careful with wording
      3. SSC and inclusion on iCAP goal -- objectives vs goals (goal = EUI)
      4. Having one consistent definition is important
   2. EUI targets for different types of buildings in different climate zones - comparing compliance with buildings (new construction)
   3. Use -- to argue for more ESCO’s, looking at new buildings, past buildings, to what extent they have failed to fulfill the anticipated energy. Going forward, how can a stricter application of energy codes and standards that we already have, what is that going to do for us? Source overview can’t do this -- we need to look at individual buildings and types over time are we able to track some future outcome (Bill Rose)
      1. Additional perspective
      2. Making use of all the data we do have, Billing Data
   4. Overall, we should consolidate what we’re talking about in the goals and objectives
      1. 2 goals dealing with similar things can be connected and impact one another, but not subsetted
      2. Different numbers, assign importance to both, parallel ways to look at the same “animal” - making it clear throughout about what we’re referring to
8. Discussion of general energy and sustainability requirements for buildings
   1. What’s the extent to which new construction is delivering building product that is what we’re looking for in terms of energy code compliance?
   2. U of I Facilities Standards
      1. What are the LEED requirements, and what are the energy specifics of the LEED requirements that we have?
         1. How does energy use in LEED buildings compare? Why are these differences seen?
      2. What’s happening in each building? Are they delivering good product?
9. Proposal (Bill Rose): F&S should work with Bill to complete an evaluation of the effectiveness of existing energy standards on energy efficiency of new construction
   * + 1. Review code and standards content
       2. Review recent case studies
       3. Factors internal to FS, external
       4. Identify factors leading to higher energy use
          1. Quality and timeliness of compliance submittals
          2. Modeling
          3. How energy requirements fit into overall project delivery
          4. Others
       5. Make recommendations
       6. Schedule and scope
   1. How will this be perceived?
   2. What do you think we need to get better compliance to current codes or improvements?
      1. Before committee is to give support, more discussion is need to see what is required of both parties and how it could possibly pan out
         1. 40-80 hours from Bill
   3. Code has sustainability as a satisfactory priority as of now
   4. Buildings to look at:
      1. Architecture buildings -- of the lowest energy users
      2. Wohlers looks the same but uses 3x the energy -- why is that?
   5. ACTION ITEM: Write up proposal and send around F&S and have conversation about before it goes to the iWG working group
      1. Karl Helmink can help guide this
      2. Think about: How many years do you want to go back? Sense of resources? How many major buildings have we turned out since 2010?
      3. Looking at energy compliance submittals from the design stage/side
         1. Did they do what was required? Study these
         2. Working with Yun Yi and looking at energy modeling of buildings - Find out how to identify quality in order to get it to the energy code throughout the whole process
      4. Change orders -- are there any energy requirements during construction?
         1. Not too common
         2. Collaborative Energy Model Method (Tom Keller)
            1. Occurs 2 years after completion of project
            2. Ex: Natural History Building
            3. Can we hold the consultants accountable two years after completion? Change orders per project?
   6. Not having the feel that the buildings are giving us the anticipated energy savings
      1. Positive buildings - where to go right and where to go wrong
      2. Looking at buildings close (or even under) the model
10. Action items
    1. Continuing discussion of 2020 iCAP
    2. iCAP Goals and Objectives Overview
    3. Proposal for F&S (Bill Rose)
11. Adjournment