iCAP Energy Team

December Meeting Agenda

12/2/2022 2:00 P.M. – 3:00 P.M.

*Zoom*

* Introduction
  + Attendees
    - Tyler Swanson
    - Andrew Stumpf
    - Martha Kubach
    - Aman Mehta
    - Damon McFall
    - Paul Foote
    - Roman Makhnenko
    - Shannon Anderson
    - Timothy Mies
* Recommendation Recap
  + Recommendations from previous meeting will be sent to IWG as soon as all comments are received
* Discussion: New Building Energy Efficiency Mandate Recommendation
  + What can we do to ensure energy efficiency in all new buildings?
  + How stringent should an enhanced energy efficiency requirement be?
    - Discussion
      * Paul asks if we have looked into net-zero or positive energy buildings, as this has been a point of discussion for several years.
      * Martha mentions that email exchange with Karl Helmink, he said it would not be cost-effective
      * Paul suggests that it may not be able to be a mandate, but there is a need for buildings to be as energy efficient as possible. When it comes to pushing new innovation, net-zero or positive energy buildings should be in the language
      * Damon notes that during the development of the MEB building, the engineers and architects had no experience with designing/building a net-zero building. Notes that there is a state mandate for LEED Silver, but if we can push for LEED platinum, that may be a more attainable mandate.
      * Andy notes discussion about LEED in Urbana, it is strange in a sense that points are attainable easily in a way that may not attain all metrics, considering changing to a net-zero or near net-zero building, and not necessary LEED certification. There is new language called “nearly net-zero” which may be applicable. Do we bring up energy efficiency in discussion with alumni?
      * Roman suggests we make the language more specific, things related to what would be done with materials in a renovation, are they reused/recycled. Second, what are the new materials being used, some are more energy efficient and less energy intensive than others, and another thing is that if the building is net-zero it should be generating green energy. As far as I know, we had renovation of the hydro systems lab and there was an argument over design and energy efficiency. With the new CIF we achieved high LEED forms. We need to be specific in what the measurements are and what incentives for participation exist. Let’s make the rationale more specific, discuss materials, heating, window size, and energy production
      * Paul: Agree with Roman, this reaches far as we look at how these buildings can be designed, I have sat on communities that design how buildings around the world get energy efficiency awards, there are many ways to achieve energy efficiency, maybe we need to reach out to people who are familiar with those building strategies. With MRL and MNTL buildings we had awards for energy and water savings. If we are going to put a mandate recommendation in we need to consider net-zero, near net-zero, net-positive energy, LEED platinum. Let’s put in language that gives groups targets to shoot for.
      * Shannon: What is the process for developing a building and is there a part of the plan that touches on energy efficiency or sustainability? Is there something we can point to in a recommendation?
      * Damon: when capital projects begins negotiations, they come up with a scope of work that lays out the ideas for the project which is signed off on all the way to the provost, which then goes out to architects for bidding. There is a hesitancy to expect too much if the field has not gone that far. But, there is something we need to do.
      * Paul: net-zero was the language/standard when I was a student, now it is net-positive, how do we tap into this?
      * Damon, I like the idea of being net-zero ready, we want to be careful in how we approach it, it is impossible to make all buildings net-zero.
      * Shannon: I want to bring back the idea of stretch codes we touched on previously, CEJA includes the state creating a stretch code that will raise the energy efficiency of buildings. The state won’t produce this until December of next year, but we can create the space for this to be implemented next year.
      * Andy: Isn’t there already an international stretch code?
      * Shannon: Yes, but new one from CEJA will be state developed with funding available
      * Martha: We should reach out to experts to discuss how these energy efficient buildings are made and what they target, and include that information in the recommendation
      * Damon: I have presentation that shows how consultants and engineers use, but they are very custom applications
      * Paul: I think we need to have an acknowledgement for new energy technologies that may not exist.
* Discussion: Green Energy Research Committee Recommendation
  + Create new committee, or enhance existing groups?
    - Discussion
      * Tyler: Energy at Illinois exists, but not sure of status
      * Andy: not sure last time energy group met, but water group was active prior to the pandemic
      * Martha; Maybe we can mention revitalizing past resources instead of starting from scratch.
      * Tyler, how do we want to structure this committee, link it with clean energy planning conference
      * Tim: we should look at groups that have already been established and haven’t been active for awhile, CABBI is more focused on bioproducts right now.
      * Shannon: we should include energy humanities
      * Andy: Dr. Jeremy Guest has been a main point of communication between energy and water teams, let’s reach out to him and try to get him on the team.
* New business
* Adjournment

CHAT MESSAGES

Aman: Hello! I am currently travelling and won't be able to start my camera or microphone. I'll be here in the chat!

Andy: CIF recently won these awards for the building systems <https://www.aiail.org/design-awards>

Shannon: SEDAC has resources about how the IL stretch code would compare to IECC: <https://smartenergy.illinois.edu/illinois-stretch-code/>

Andy: In Urbana for the fires stations we were considering Net Zero Specification, LEED Silver or Gold project certification, or PassiveHouse PHIUS Design for Commercial Buildings