

iWG meeting

2/25/21 8:30-10

Attendees: Morgan White, Ximing Cai, Joey Kreiling, John Dallesasse, Matthew Tomaszewski, Brian Bundren, Creen Ahmad, Sandy Yoo, Jonah Messinger, Meredith Moore

Guests: Yun Kyu Yi

1. Energy005 – Modeling for Energy Code Compliance

- Energy models are already required for campus buildings, though this is not regularly enforced, so several buildings do not have energy models.
- One of the goals for this recommendation is to involve students in the process.
- *Yun Kyu Yi*: Energy simulations provide a lot of information (e.g., solar gain, which spaces use the most energy, how much energy could be saved), by applying certain strategies (solar panels, insulation, etc.)
 - i. These models can propose building economic cost improvement over baseline building (e.g., 30.5%)
 - ii. Compare targeted and actual values
- Yun teaches ARCH 576 course: Building Performance and Design and ARCH 594: Building Energy Simulation
- Students typically go out and measure fixtures, bulbs, how many people are using space, etc. to get calibration (final calibration vs. metered conditions)
- Could the class help with the models?
 - i. Two groups typically work on one building; 10-15 students; could work on 2-3 buildings
 - ii. Since a lot of work is required, could graduate students help?
 - iii. Yun could potentially form a student group
- This recommendation will be sent to F&S, and will likely take some of Yun's time; could this recommendation potentially be copied to Yun/his department in addition?
 - i. Project could be offered in the undergraduate class
- There is a BS in sustainable design. Yun suggested that these undergraduate students could potentially collect data sets.
- *Sandy* – calibration could only occur in post-occupancy because of the surveys and actual use of building vs what we anticipate what the building could be designed for
- The purpose of the class (or if we employ undergraduate students) is to provide some level of training for students
- Brian Deal and Andy Robinson have taught SEDAC class – do they also do energy models?
 - i. Yun suggested that there are different tools so if they do energy models, it is possible they use different tools/software.
- *Sandy* – Can we look to F&S to identify which buildings to start with? Second phase could be post-occupancy?
- *John* – Would there be “spot-checking”/audit using an outside firm to confirm accuracy? Student groups could do modeling and subset and then we could engage in outside firm to potentially do a comparison.
- *Morgan* – We would get permission to share the students' final reports. What would we do this report and with the models?

- *Sandy* – This is a benefit for both students and university; could be expensive for F&S if they pursue this through a private party.
- *Morgan* – Could look at buildings based on need/calibration effort, some that have been retrocommissioned, some that have not been retrocommissioned
- *Ximing* – We recommend energy staff to be assigned to this work as well; staff member from Planning/Capital
- Anticipated outcomes and timeline:
 1. Pre-planning, associated cost, timeline, academic assistance and resources needed
 2. Semesterly or annual presentation on models, data, and what has been found
- *Ximing* – How much of this expectation would this go beyond Yun’s course work? Would there be a lot of extra time/effort needed? Opportunity for [Levenick teaching fellowship](#) opportunity and support from School of Architecture where Yun works?
 - i. *Yun* – This could be discussed in the planning stages. It would likely go beyond the class. It would need to be discussed with department.

iWG Energy005 draft assessment: We recommend that Facilities & Services assign a staff member from Capital Programs or Utilities and Energy Services (possibly from Design Review) to work with Dr. Yun Yi’s class to develop the related energy models, on a timeline that matches the academic course abilities.

2. Energy004 - Energy Conservation Funding

- F&S met with College of ACES leadership – currently wrapping up Energy Performance Contract within set of lab buildings at the College of Engineering. The next one on the list is similar for lab buildings in ACES. Josh Whitson outlined this \$40 million project entirely within ACES
- Rob Roman/team, and Dean Kidwell/team, met and discussed what next steps are = we just need to find money. Dean Kidwell is supportive that this is clearly a good thing to do: Morgan recalls that Dean Kidwell said, “Can’t argue with the math.”
 - i. F&S, ACES, and campus leadership should work together to prioritize this.
 - ii. This wouldn’t generate new money but would save money in the long-run
- This would go to Sustainability Council, after discussion at the first sustainability sub-council on 3/18/21, because it requires a large amount of funding
- *John* – Initial investments are needed. We can then take the savings, fold the savings into new energy programs
 - i. \$10 million funds a \$1 million program the next year, which is used to fund \$1.2 million the next year = energy savings feeding additional energy savings
- We need to stress urgency in the recommendation
- With retrocommissioning, avoided \$56 million in energy costs, which is not currently entirely reinvested back in energy projects
- *Jonah*- We have guaranteed contracts with outside parties who will front the money; it is not a loan. If we privately finance this, we can do it all (Jonan will put this in his iWG assessment comment, with a couple of links as examples). Morgan responded that it is like a loan.
- *Ximing*: to what extent this recommendation matches the finance criteria Paul Ellinger put, including campus priority and “money generation” (cost saving for this case)?

- This will be discussed at the sub-council meeting on 3/18/21, presumably at the Sustainability Council meeting, with a decision hopefully in summer/fall 2021

iWG Energy004 draft assessment: Based on discussions with F&S Utilities & Energy Services and the Office of the Provost, we recognize that this recommendation meets strategic priorities and will reduce energy costs. The iWG recommends that the College of ACES, Facilities & Services, and the Campus work together to prioritize funding for the ACES Energy Performance Contract, and initiate that effort as soon as possible.

3. Res002 Biodiversity Plan

- According to iCAP 2020, in collaboration with Champaign, Urbana, Savoy, and campus, we would create a biodiversity plan
- Lisa Merrifield with U of I Extension has the qualifications and unwritten approval to move forward
- We would also include and engage with park districts, school districts, townships, etc. in this effort.
- *Sandy* – What is the level of interest from these various groups? For example, we have high interest, but is everybody also interested in this?
 - i. During stakeholder engagement, we can try to gage interest.

iWG Resilience002 draft assessment: We recommend Illinois Extension proceed with developing a biodiversity plan for the Champaign, Urbana, and Savoy areas, including all related jurisdictions (e.g., University, park districts, school districts), with leadership by Lisa Merrifield. Through community stakeholder engagement, it is particularly important to include the level of interest and ideas of the various communities regarding biodiversity issues.

4. Recommendation updates

- [Edu002 – Internship Coordinator](#)
 - i. Education and Resilience teams met and discussed next steps
 - ii. Eric Green (iSEE Instructor and Advisor) and an intern will take the lead in moving this forward
- [ALUFS004 – South Farm Management Plan](#)
 - i. On-campus BMPs moving forward
 1. There has been some delay due to complications defining the scope
 2. Next steps - form study group/committee
 3. Will be discussed at subcouncil on March 18; may go beyond ACES
 - ii. iSEE and College of ACES discussing off-campus efforts
 1. Next steps – form working group to discuss BMP efforts and extension
 2. Will be discussed at subcouncil on March 18; Dean Kidwell, German Bollero, Madhu Khanna are discussing in the meantime
- [PWR014 - Sustainability Training](#)
 - i. [Ethics Training – iCAP Portal page](#)
 - ii. iSEE in process of hiring a graduate student to help with this effort

- iii. Ultimately, moving forward with this work.
 - [Solar Farm 2.0 \(EGen007\)](#) and [Solar Farm 3.0 \(EGen008\)](#)
 - i. Solar Farm 2.0 went live (energized January 29, 2021).
 - ii. Note that the panels do move; [we can track it live](#)
 - iii. There have been some challenges with Solar Farm 3.0; F&S and iSEE met with Chancellor Jones and Susan Martinis last July to answer questions regarding moving forward with the RFP. We prefer to move forward with an RFP for a VPPA where we know that we are adding solar installations (more cost effective) and getting green power with clear additionality
 - Challenging because it is an unfamiliar process and we will have to change derivative use policy
 - Approval of the changes to the Derivatives Use Policy will likely be pushed to May Board discussion – trying to make sure all questions are being addressed and answered; we are working with Chancellor Jones to provide answers at the system level
 - Will be discussed at subcouncil and Sustainability Council
5. Group updates
- Student updates
 - i. SSLC (*Joey*) – met early March for first “meet and greet” event, which went very well; students attended from over a dozen organizations
 - Next steps to discuss leadership changes and discuss how to build up the network
 - ii. SSC (*Jonah*) – new members have recently been added; student fees were partially collected in the fall and not collected at all in spring
 - Still had ~\$50,000 to spend this semester, compared to in a regular academic year of \$1.4 million
 - Student fees will be charged in the fall, which is good news to return back to normal and being able to fund campus projects
 - At present - only accepting student-led projects under \$10,000
 - What can Student Affairs do to promote sustainability on campus? It is very important to not reinvent the wheel and instead build connections. Jonah will bring this back to SSC leadership.
 - iii. ISG (*Creen*) – 23 official members on Environmental Committee, ISG has about ~\$40,000 right now to spend in order to guarantee future funding
 - Plastic bag drop-off engagement and advertising with F&S
 - RSO day will be March 12
 - Succulent drive in March or April
 - Committee wrote resolution encouraging ISG and other RSOs to reduce waste (stop producing t-shirts, Frisbees, etc.)
 - Moving forward with the gen-ed requirement resolution in mid-March
 - Weekly reports are sent to ISG, and this committee looks at all ISG resolutions pertaining to sustainability
 - F&S - finalized Energy Management Plan (list and explanation of F&S planned projects for next five years) and is working on getting the word out
 - iSEE – March/April planning for spring and Earth Month
 - i. Ted Talk Eco Edition Series (February topic: Environmental Justice, March topic: Plastics, April: Environmental Activism/Earth Day, May: Bikes)

- ii. March Plastic Free Challenge
 - iii. Career Center Sustainability Panel on Friday, April 9 from 12-1
- Jonah updated that the Solar Decathlon house is nearing completion in ~ 1 month, then the group competes. Will continue to update.

DRAFT