

Energy iCAP Team

October 2022 Meeting



UNIVERSITY OF
ILLINOIS
URBANA-CHAMPAIGN

Meeting Priorities

- Sustainability Celebration Presentation Review
- Review of Energy iCAP Priority List
- Discussion of Renewable Energy Procurement
- Discussion of Clean Energy Plan

Sustainability Celebration Presentation Review



Illinois Climate Action Program

Energy iCAP Team

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PLAN



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Past Objectives and Projects

Improvements in LEED Certifications

- F&S tracks LEED status for every (big) building
- BIF, Lincoln Hall, Bousfield = Platinum LEED Certificate

Power Plant Carbon Sequestration

- SSC funded project

Retro-commissioning (2008-2018)

- Analyzing at building's heating, ventilation, air conditioning
- Change operating systems to optimize energy conservation
- Average saving of 25% per building



Current Objectives and Projects

Wind Energy Power Purchase Agreement (PPA) - 2016 – 2026

- Urbana campus purchases 25000 MWh (5% of total energy consumption.)

Illini Lights Out

- Student-led initiative to turn lights out around buildings on campus to conserve energy

Solar Energy

- Solar Farms 1.0 & 2.0
- Off-campus Solar Farm 3.0 PPA
- Solar rooftop PVs



Future Objectives and Projects

Establishing stricter goals with improved accountability

- Ongoing project to create a plan for 100% clean energy transition
- Net zero carbon emissions by 2050

Energy 008 submitted recommendation

- The Office of the Provost provide a clear charge to F&S to meet and/or accelerate energy requirements

Green Labs Committee

- Integrate iCAP objectives with research areas on campus

Use Renewable Natural Gas

- Decarbonizing thermal energy

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Energy iCAP Priority List Review



Energy Team Priority Areas

- Feasibility of LEED Operations and Management certifications (STARS Report, pages 37-41)
- Reduction in EUI floor area per degree day of 22.09 to 6.5 Btu; 19% reduction in total space energy consumption per unit of floor area (STARS Report, page 43)
- Reduction in total energy consumption and increase renewable energy generation and procurement (STARS Report, pages 44-46)*
- Revolving Loan Fund promotion
- Green Labs (STARS Report, pages 22-23)
- Revolving Loan Fund and SSC projects
- Clean Energy Plan*

In Progress iCAP Portal Projects

- ECE Net-Zero Energy Building
- Energy Farm LED
- Fume Hood Shut the Sash Campaign
- InSPIRE SPOT

Clean Energy Plan



Objectives

- Creating strict goals and guidelines to help us reach energy goals
- Strong foundation first
- Focus on creating/buying renewable energy
- Geothermal
- High potential
- Solar
- Buying wind
- Improved accountability from F&S
- Objective 2.3: "Use clean energy sources for 15% of total campus energy demand by FY30."

Aspects to Focus On

- Energy 008 submitted recommendation
- The Office of the Provost provide a clear charge to F&S to meet and/or accelerate energy requirements
- Check up on status
- Push forward
- Clean energy plan also needs stronger emphasis on energy conservation
- Illini Lights Out is good, but efficient technology works
- Lower energy consumption
- Rooftop solar panels proposed plan: As of 2016, the financial payback for solar photovoltaics is not strong enough to easily justify the up-front costs, so it was cancelled
- Push for more research
- Science is key



Renewable Energy Procurement



Current Status

- Wind Energy PPA with Rail Splitter Wind Farm ~ 25,000 MWh/Yr. through October 2026
- Solar Energy PPA (Solar Farm 3.0) Was discussed in 2021, UIC was interested in the project to procure 80,000 MWh/Yr. of SE generated in Illinois.
- Previous discussions were held to sign a PPA for the National Petascale Computing Facility, but the project is now offline.

Thank You!

I-L-L!

