

Sustainability Council

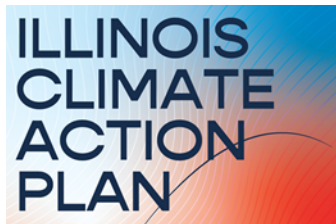
November 29, 2021



UNIVERSITY OF
ILLINOIS
URBANA-CHAMPAIGN

Welcome

- Introductions
- Student group updates
- Clean Energy Plan
- Rainwater Strategies
- Green Labs
- Strategic next steps
- Wrap up



**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



- In the 2020–2021 academic year, allocated \$321,000 to sustainability projects: everything from innovative electric and solar vehicles to low-flow shower heads.
- Collected \$500,000+ from student fees this semester.
- Received applications for 21 separate projects
- Boosted membership of voting members to 18 students, 450+ general members
- Project application workshop

Student Concerns

- Students are concerned about meeting divestment objectives by 2025.
- Some concern about increased operating costs:
 - Center for Climate Finance at Imperial College Business School and the International Energy Agency reported in March 2021 that renewable power generates a **422.7% return**, compared to a **59% return** from fossil fuels.
- We ask that the UI System revise the explicit investment policy offered to the operating and endowment pool account managers to include language that reflects the implicit reference to sustainable investing in the Illinois Sustainable Investing Act.
 - Current Language:
 - Within each asset category, investments shall be diversified further among economic sectors, industry, quality and size. (pg. 9 Investment Policy, linked below)
 - Sample Language:
 - Within each asset category, investments shall be diversified further among economic sectors, industry, quality and size, **while avoiding companies that extract, transport, or distribute fossil fuels.**



- Organised the inaugural Student Sustainability Summit throughout October
 - featured a wide range of sustainability leaders from both on- and off campus, via more than 25 individual events
- Met regularly with leadership from student groups across campus, such as SECS, the SSC, Solar Decathlon and many more.
- Working to facilitate more events aimed at promoting sustainability this April for earth month, in collaboration with the student union, isg, secs, etc..

Student Concerns

- Student leadership across campus affirms the need to fulfill the University's commitment to divestment **by 2025**.
 - ICAP objective 9.1 – **Divesting from fossil fuels**
- The letter addressing Tim Killeen and Jim Moore from April 15th does not adequately advise divestment.
 - The term “divestment” is not used once in the whole of the letter.
- Student leadership asserts that a rewritten letter which adequately notifies the UIF of their responsibility to withdraw funds from the Fossil Fuel industry is absolutely necessary.
- We additionally recommend that **UI System as a whole creates a comprehensive and publically-accessible plan to divest by 2025.**



ISG

ILLINOIS
STUDENT
GOVERNMENT

ISG UPDATES

- In the Spring of 2019, ISG endorsed and passed a referendum question regarding university fossil fuel divestment within the next decade
 - The referendum question received fiercely positive responses and passed by a majority
- In 2020, ISG passed a resolution that affirmed our commitment to limit waste
- Our organization has worked in coordination with other student groups to educate students on the current state of the environment through informational stands at Environmental Quad Day and teach-ins
- In early November, my Vice President and I met with the UIF President to discuss foundation operations. We were shocked to learn that the UIF President has not been given direct action to divest from fossil fuels



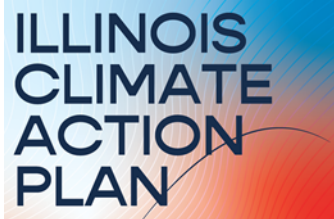
President Egiebor & Vice President Arnold at the SECS Climate Strike

Student Demands

The University of Illinois prides itself as a leader for innovation and progress. Students are key stakeholders in the happenings of this university. Therefore, we have three demands:

1. We ask that the UI System revise the explicit investment policy offered to the operating and endowment pool account managers to include language that reflects the implicit reference to sustainable investing in the Illinois Sustainable Investing Act
2. We ask that Chancellor Jones rewrite his letter to Jim Moore and Tim Killeen to request divestment distinctly
3. We also request that UIF and UI System publish a comprehensive divestment plan for public view
 - We suggest UIF form a relationship with MSCI or a like-minded competitor
 - MSCI is a financial services company that works with asset managers (UIF/UI System) to build ESG fixed income (bonds) and risk asset (stock) portfolios based on internal ESG ratings, including but not limited to data from the Climate Lab Enterprise

Clean Energy Plan



**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

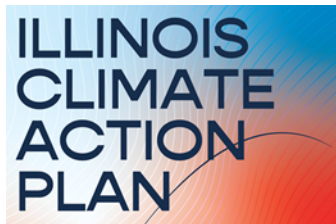


Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Energy007

Comprehensive Energy Planning Document

- ICAP carbon neutrality goal by 2050 or sooner requires a long-term clean energy plan with a focus on reducing carbon emissions
- Existing F&S plans: focus on providing least cost energy supply to campus and not designed to reduce carbon emissions
 - *F&S Energy Management Plan*
 - *Energy Utilities Production and Distribution Master Plan*
- iWG Recommendation: *“We support hiring a professional service company to develop a specific, measurable, achievable, realistic, and time-bound carbon neutrality energy master plan. This would utilize information provided in the F&S Energy Management Plan and the Energy Utilities Production and Distribution Master Plan.”*
- For discussion and approval: Hiring a consultant to develop a comprehensive plan to achieve carbon neutrality



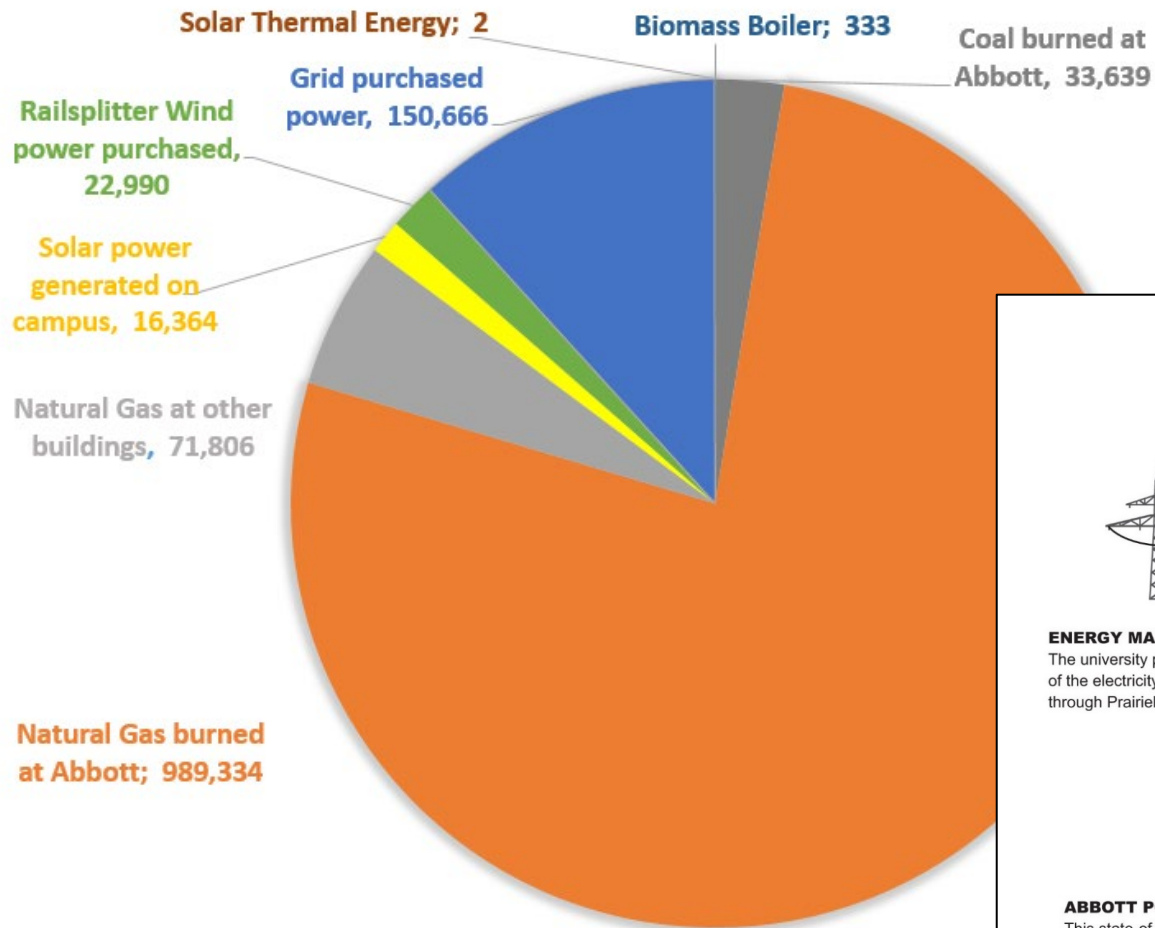
**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Campus Energy Needs

FY21 ENERGY SOURCES IN MEGAWATT-HOURS/YEAR



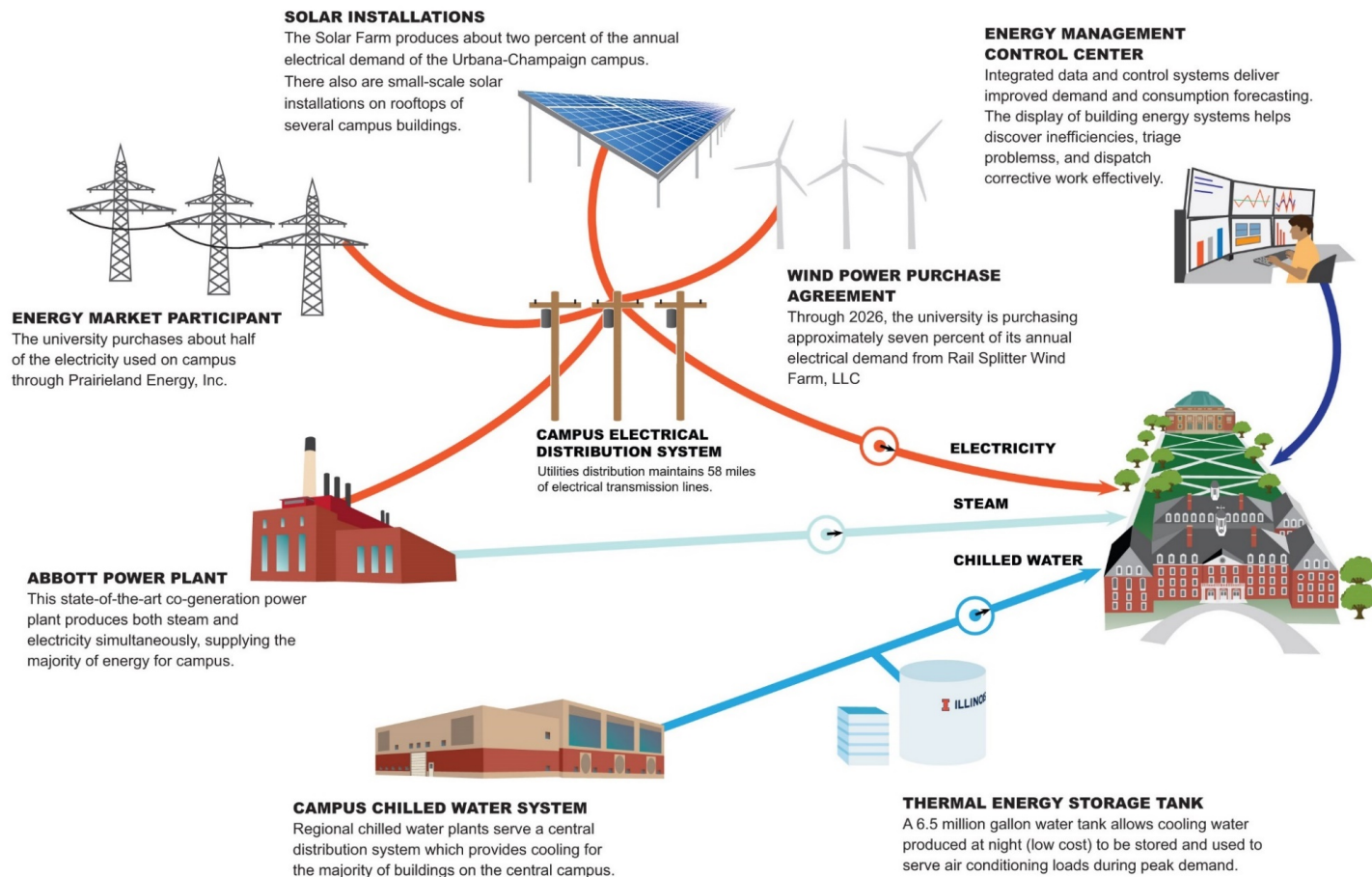
Key Figures for FY21

- Total Energy = 1,285,133 MWh
- Clean Energy = 39,688 MWh (3.1%)

---Power is a subset of Energy---

- Total Power = 414,449 MWh (32.2%)
- Clean Power* = 39,353 MWh (9.5%)

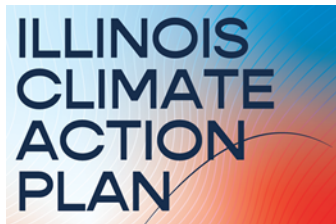
* only includes MWh with RECs owned by UIUC





2015 Utilities Production and Distribution Master Plan - Recommendations

- **Limit campus growth** to net zero GSF.
- Expand the current **energy conservation** program in conjunction with retrocommissioning.
- **Enhance best-in-class diversified fuel cogeneration plant.**
- Add variable speed chillers to central system.
- Promote heat recovery systems and energy reduction strategies on all new capital projects.
- **Increase the electric import capacity.**
- Pursue additional renewable projects and **renewable power purchase agreements** as opportunity affords them.
- **Purchase renewable energy credits.**
- Apply heat recovery chiller technologies in specific campus regions.
- Re-evaluate and apply best of industry energy supply in the 2030-2040 time frame.



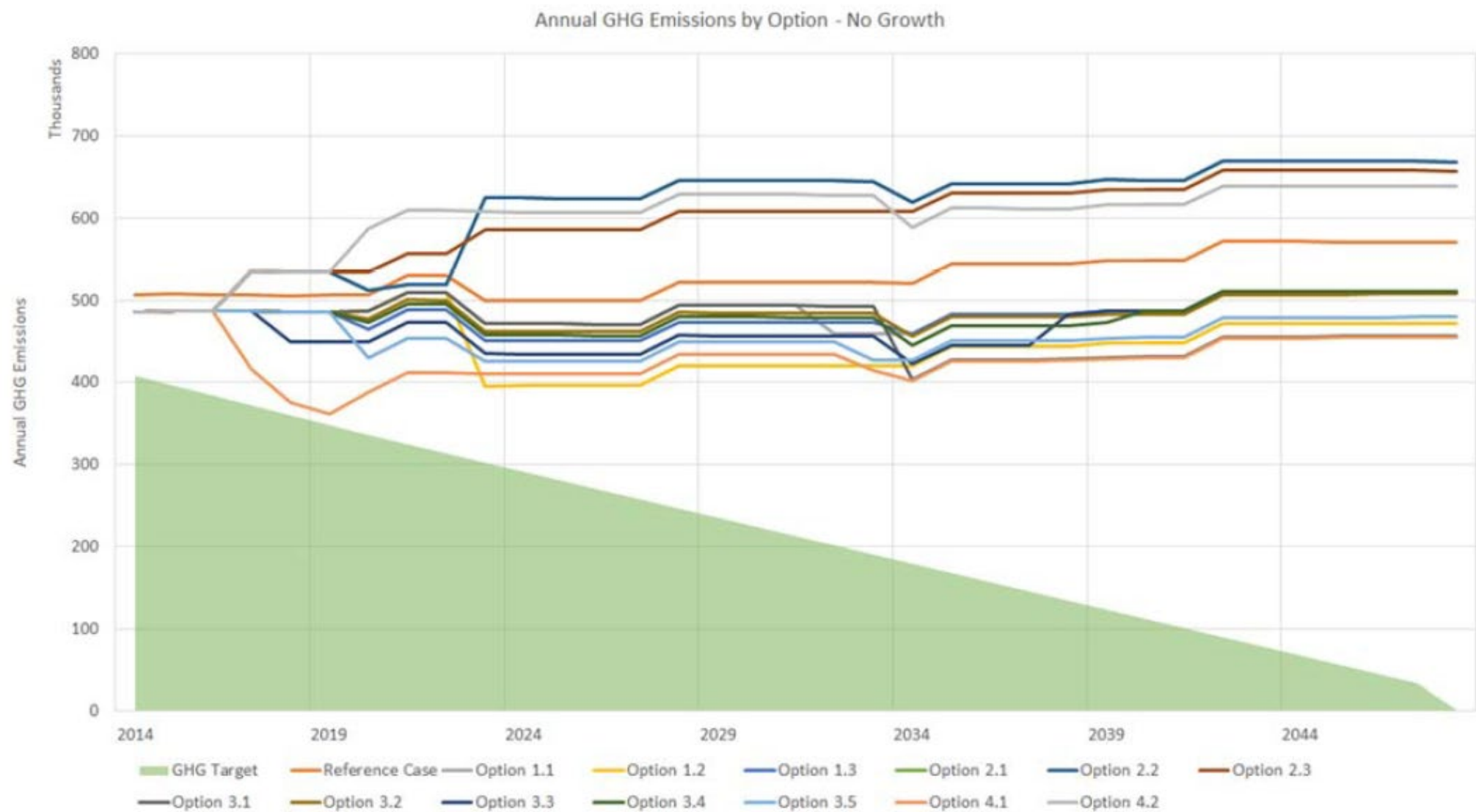
**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

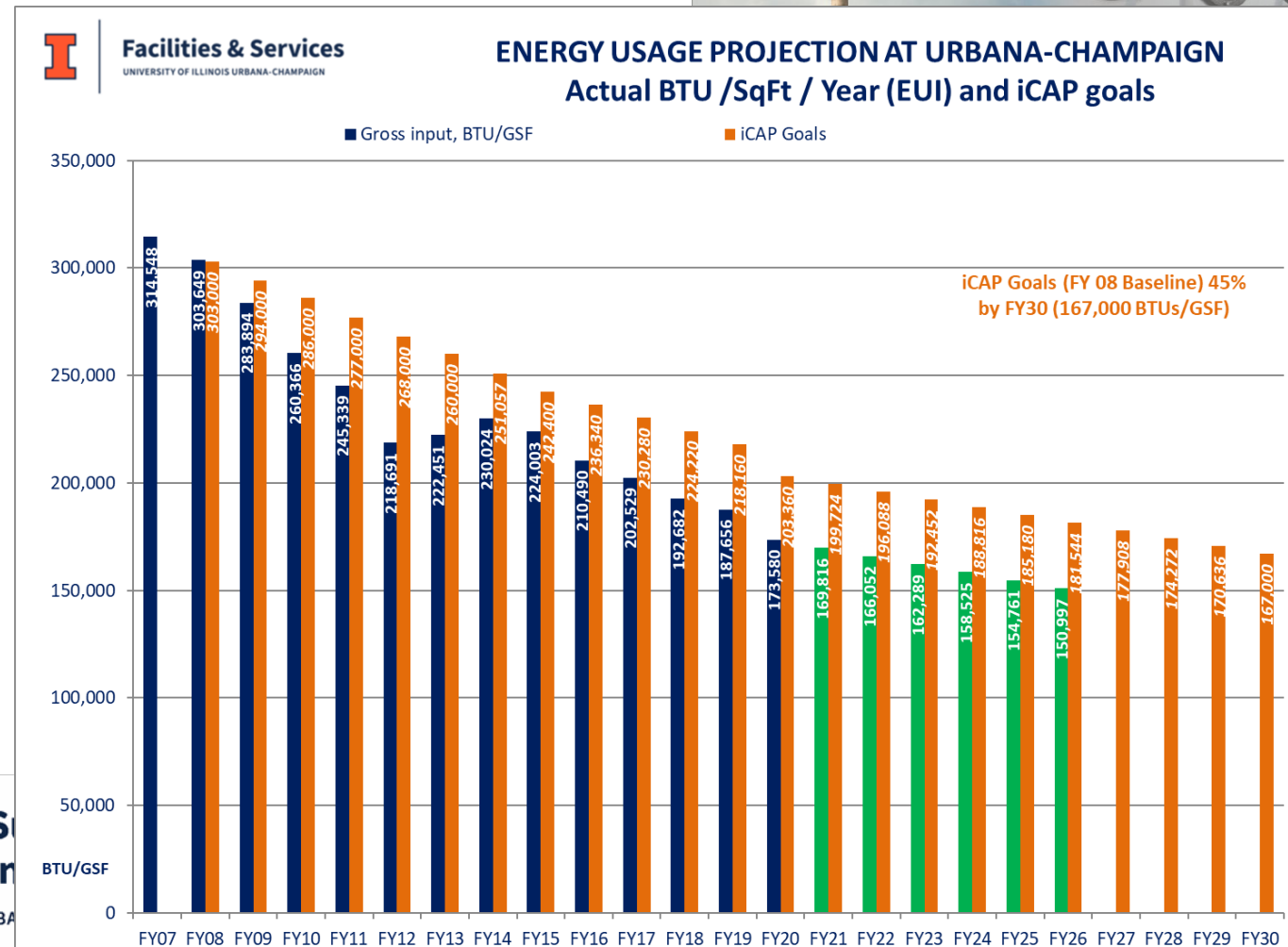
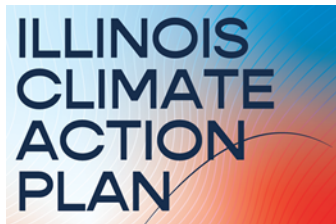


2015 Utilities Production and Distribution Plan: Not designed to lower GHG Emissions



F&S Energy Management Plan

- Clean Energy and Energy Conservation Projects
- Planned Projects for FY21-FY26
 - Retrocommissioning (RCx) → 21,500 MWh savings
 - Recommissioning (ReCx) → 38,900 MWh savings
 - Energy Performance Contracts → 60,700 MWh savings
 - Supply Side Changes → 27,000 MWh savings
- Resulting Energy Impacts
 - 50% reduction in **Energy Use Intensity** by FY26



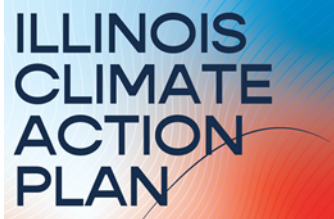


Need for a Clean Energy Plan to inform the path forward



- Strategic direction for meeting our Carbon Commitment
 - Without just buying offsets and RECs
- Updated estimates of costs of alternative strategies, including energy conservation measures
- Holistic solutions rather than one-off projects – to achieve the goal by 2050 or sooner
- Approval to pursue funding for this overall analysis, estimated as \$1M

Rainwater Strategies



**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

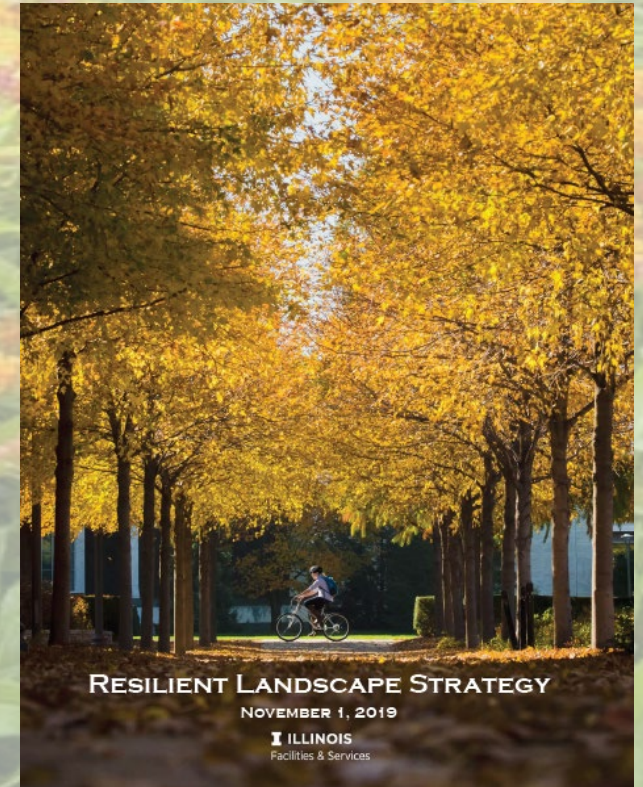
Resilient Landscape Strategy

“To help campus landscapes— and the people who care for them—become more resilient to environmental, societal, and economic challenges”

Key challenges

Lack of resilient rainwater management

- There is a lack of funding and lack of single entity responsible for this problem
- Stormwater utility charges are not covering the cost needed to improve infrastructure



Rainwater Management

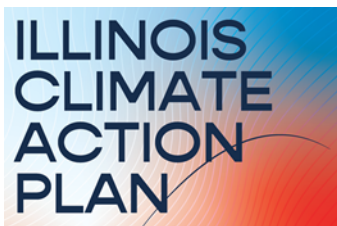
- Critical with climate change bringing severe storms and increasing rainfall flooding
- Absence of green infrastructure
 - green roofs
 - rain gardens
 - rainwater harvesting
 - permeable pavements
 - Bioswales
- Reliance on grey infrastructure that seeks to dissipate floods
 - Contributes to polluting run-off in the stormwater system and impaired water quality

Red Oak Rain Garden



Vet Med Parking Lot – LW002





**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

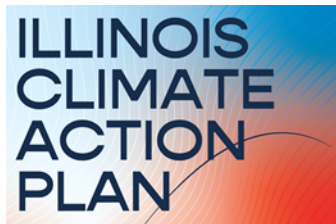


Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Vet Med Parking Lot & Rainwater Issues: Decision Elements

- What is the first step? More detailed assessment or initiate design?
- Responsible entity?
 - Utilities
 - Grounds Department
 - Parking Department
- Funding options
 - Campus funding, Vet Med funding, Parking Department funding, Stormwater Utility Fee funding from UES, Grounds funding?



**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



GREEN LABS

**ILLINOIS
CLIMATE
ACTION
PLAN**



**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

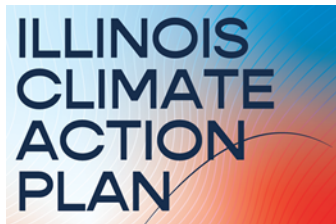


Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Green Labs: Safe and Sustainable

- Lower energy and water usage and associated costs and emissions
- Longer life span for lab equipment -preventative maintenance for freezers
- Ensure safety and no additional risk to staff and researchers
- More sustainable use of space and facilities
 - Analysis of fume hood usage (needs and possible consolidation),
 - A Shut the Sash fume hood initiative,
 - Freezer and refrigerator management
 - Space efficiency and utilization
 - Water conservation
 - Recycling (e.g., batteries, Styrofoam)
 - Energy efficiency
 - Management of lab chemicals and hazardous waste disposal



**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



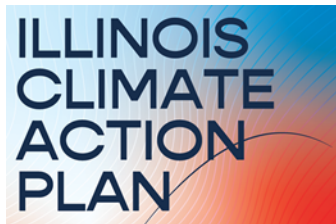
Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Green Labs Task Force

Including Representatives from OVCRI, Chemical Safety, Research Compliance, F&S and iSEE to develop

- Recommendations for best practices to be implemented and encouraging behavior change in labs without compromising safety
- Guidance for upgrading and renovation of existing labs to improve safety and sustainability and working with labs to showcase benefits
- Priorities for investment in building improvements
- Guidelines for making safety and sustainability of labs part of the education mission for students working in labs



**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Strategic Next Steps

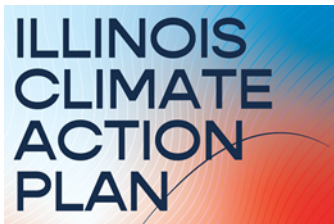
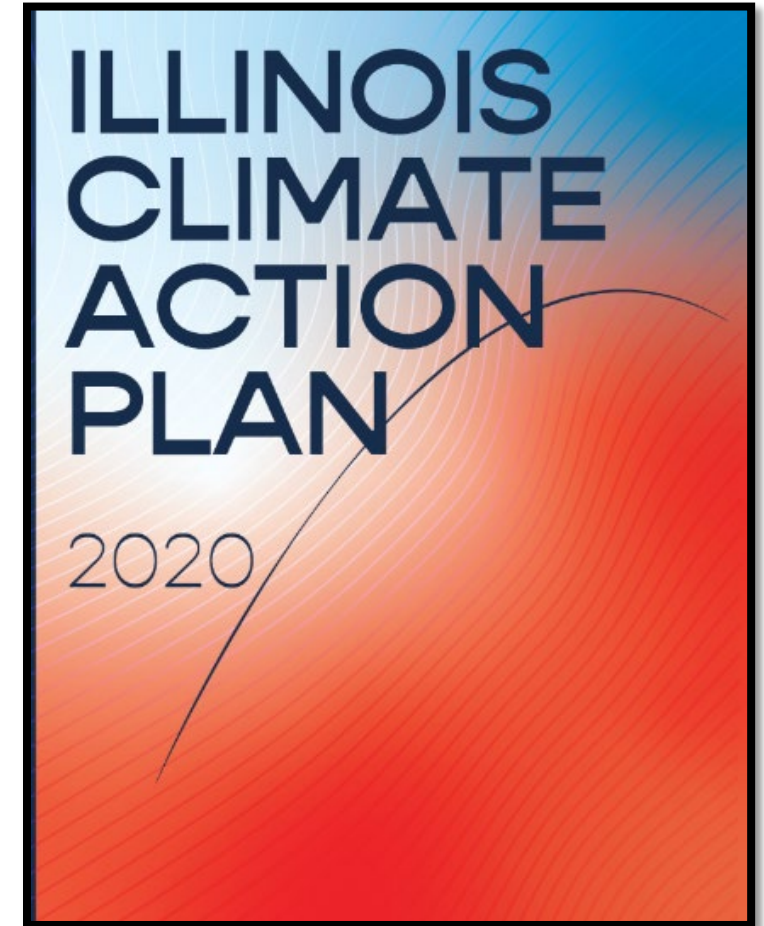


UNIVERSITY OF
ILLINOIS
URBANA-CHAMPAIGN

Priorities

Achieve carbon neutrality by 2030 –
2050 and other ICAP goals

- Include iCAP in Campus Strategic Plan
- Will also improve our ranking in the AASHE STARS program from Gold to Platinum
 - (Sustainability Tracking, Assessment & Rating System™ (STARS®) transparent, self-reporting framework for colleges and universities to measure their sustainability performance)



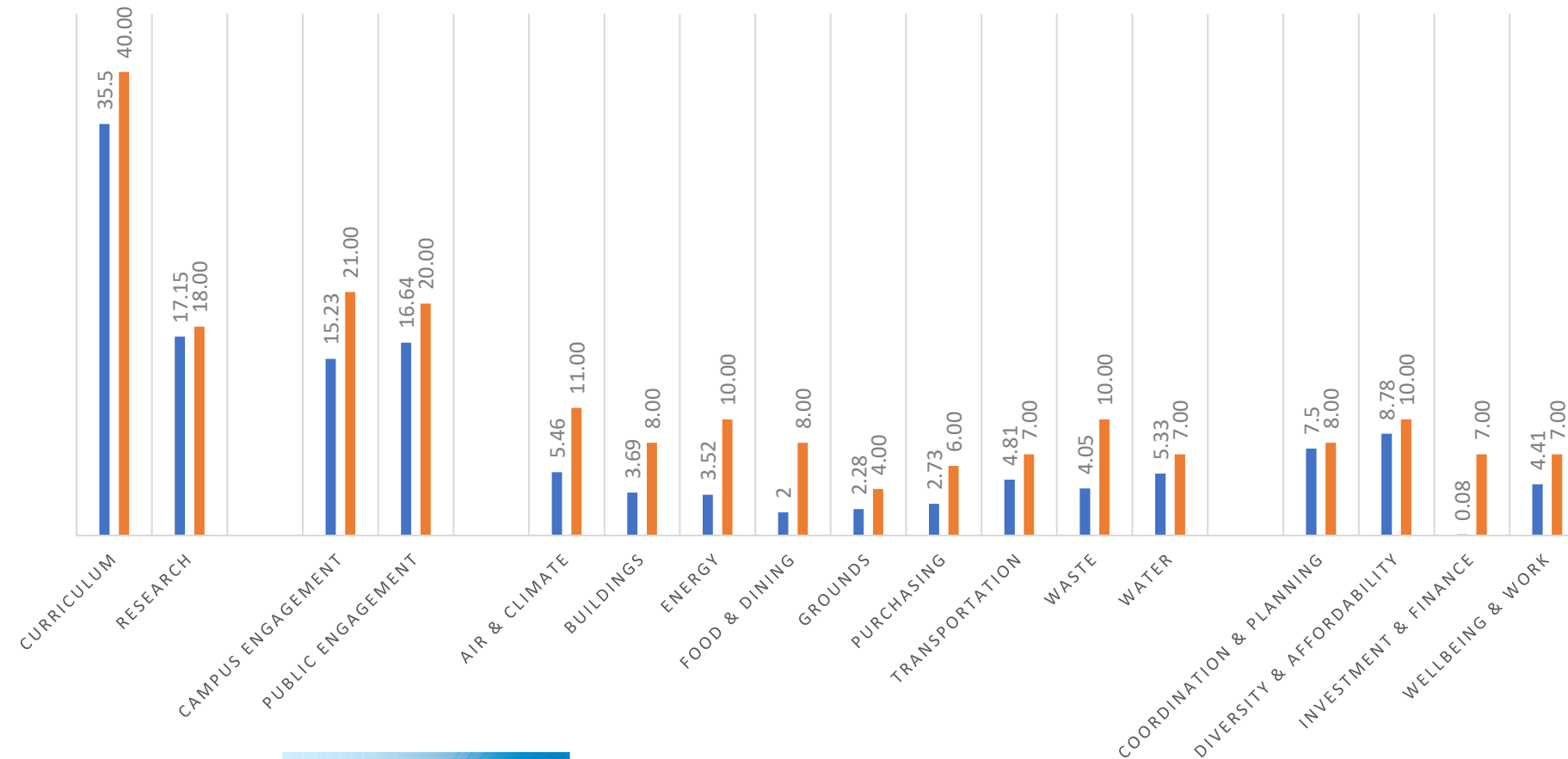
**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



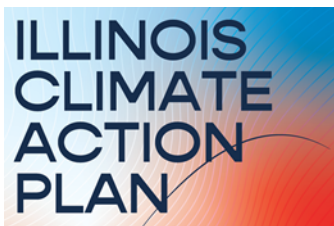
Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Currently at STARS Gold

■ UIUC ■ Max Score



- Currently at 72.89 points; need 12.11 more points
- 10 Platinum institutions
- Categories to improve
 - Investment & finance (divestment)
 - Waste (volume of waste, diversion rate)
 - Food & dining (local, sustainable purchases)
 - Clean energy (building-level, consumption)



**Institute for Sustainability,
Energy, and Environment**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Facilities & Services
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Wrap up – thank you!



UNIVERSITY OF
ILLINOIS
URBANA-CHAMPAIGN