



ENERGY CONSERVATION & BUILDING STANDARDS

More than 80% of campus greenhouse gas emissions result from on-site combustion and grid electricity purchases that heat, cool, and provide electricity to campus buildings. Consequently, achieving our carbon neutrality goal will require a strong building energy conservation program, and this is considered top priority as it leads directly to both emission reduction and cost savings that can facilitate even further emission reductions. The ECBS SWATeam members recommend actions the Urbana-Champaign campus can take to best reduce building energy consumption.

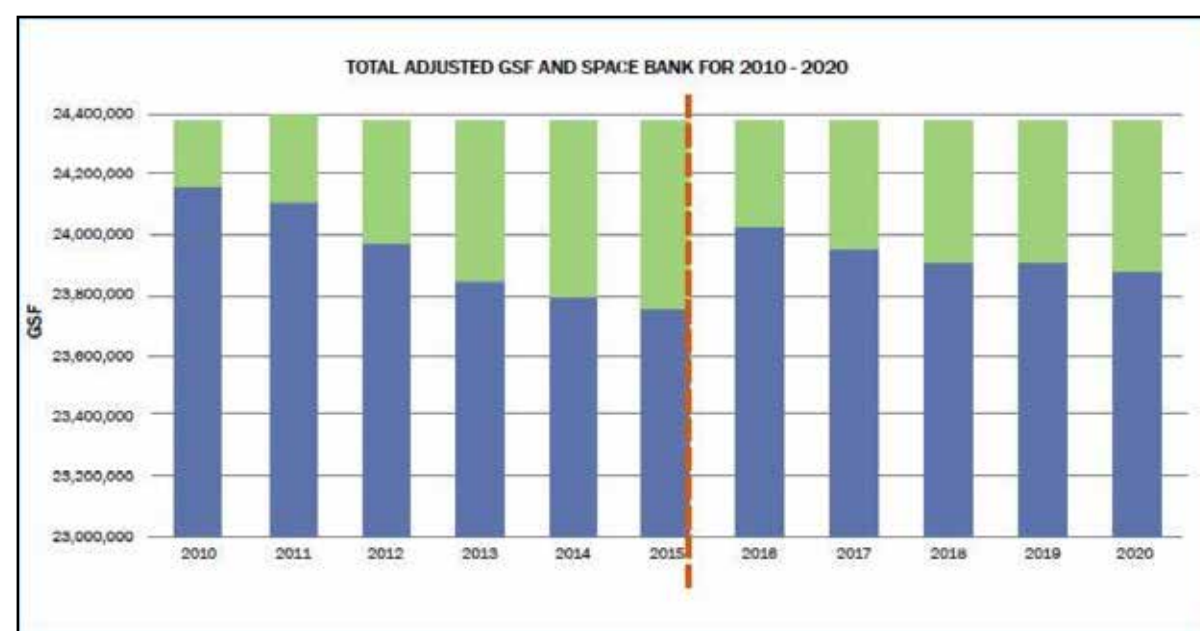
OBJECTIVES

2.1. Maintain or reduce the campus gross square footage relative to the FY10 baseline.



Status:
Policy approved in 2015

- The Net Zero Space Growth Policy was approved and adopted into the Campus Administrative Manual effective July 1, 2015.
- Associate Director for Space Analysis Jill Maxey is tracking square footage of campus and the "space bank." See DRAFT below. Green bar represents current and projected space bank. Blue bar represents current gross square footage (GSF).



2.3. Strengthen centralized conservation efforts focusing on building systems to achieve a 30% reduction in total campus building energy use by FY20. This includes meeting the LED Campus commitment.



Status:
In progress

- Based upon the FY17 energy data, we have achieved a 33% energy reduction, surpassing our 2020 iCAP goal of 30%.
- ESCO projects are continuing. Retrocommissioning (RCx) projects at the Illini Union and Memorial Stadium are underway. RCx accrued avoided utility costs of more than \$47 million in 10 years of operation.
- More funding is needed to achieve more energy conservation. We do have advisable energy projects that require funding.
- Recommendation to create a Green Labs Coordinator position approved to focus on reducing energy consumption in labs (e.g. fume hoods, freezers).
- LED bulbs continue to be installed in exterior lights and interior exit signs.

2.2. Identify the highest achievable energy standards for new buildings and major renovation, and incorporate these into the campus facility standards by the end of FY16.



Status:
In progress

- Adopted American Society of Heating, Refrigerating and Air-Conditioning Engineers' (ASHRAE) 90.190.1-2013 energy standard — superseding the ASHRAE 90.1-2010 standards — for new construction.
- Will exceed energy savings that are specified in the most current LEED version 4, by 8%.
- Considering adopting 30% above code for new construction & 26% above code on renovations.

2.4. Engage and incentivize the campus community in energy conservation, including a comprehensive energy campaign, with at least 50% of units participating by FY20.

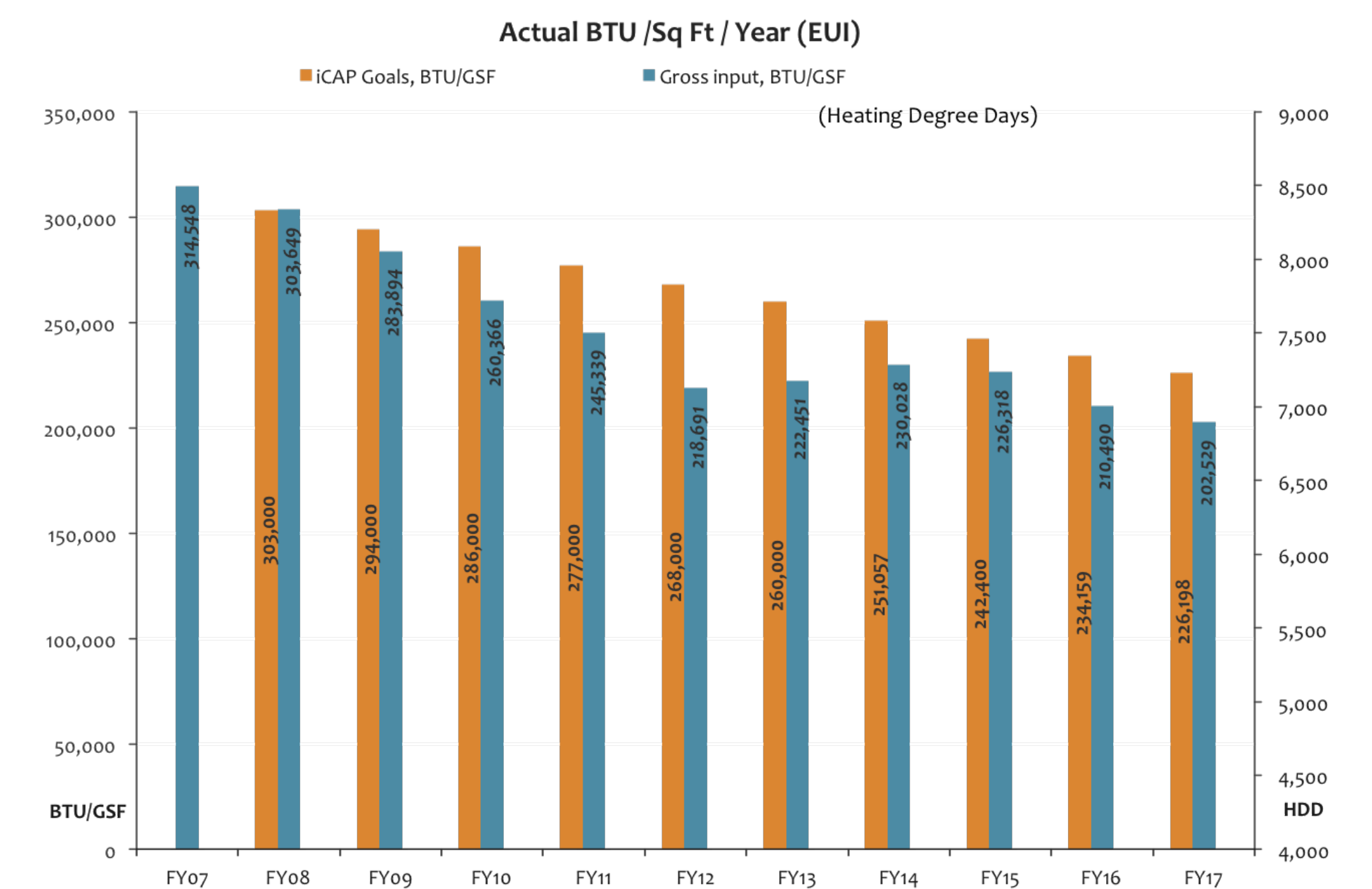


Status:
In progress

- Illini Lights Out in 2016-17: 11,000 lights turned out. ~ \$3,400 saved. 200+ students participated. 2017-2018: Being implemented monthly through iSEE.
- Certified Green Office Program (CGOP) had 46 departments participating in 2016. Goal is to have 75 certified offices by May 2018.
- Energy Conservation Incentive Program (ECIP) awarded \$168,000 for FY17. Eight units participated.
- Eco-Olympics engaged 11 residence halls in 2017 with 183 active students participating, resulting in a 300% greater participation rate than previous years.
- Building-level energy report cards: Sustainability minor student is piloting these in 10 facilities.



ENERGY USAGE TREND



TEAM MEMBERS



ACKNOWLEDGEMENTS

Paul Foote, SWATeam community member 2017
 Claire Kredens & Vince Spagnola, iSEE student interns implementing Illini Lights Out