

Energy Conservation Initiative (ECI) Project Summary

Wilson Lab Lighting, Facility 2085

What We Did: Lighting contactors were installed to control lighting in the high bay and tunnels. The existing lighting controls required all lights in those areas to be on 24 hours a day. The new lighting scheme allows lighting to be reduced to 50% in the tunnels during times the synchrotron is in operation. Lighting in the high bay spaces was also minimized during low occupancy periods.

What It Cost: \$8,000

How Long It Took: 3 months. Completed June 2011.

What We Saved: \$5,700 and 36 tons/per year carbon equivalent annually.

Benefits: Reduced energy use and increased lamp life.

The new lighting controls in the high bay and tunnel were the idea of our staff here at Wilson, and we are very thankful that the ECI team could implement that idea to make us more efficient.

Rich Gallagher,
Facility Engineer,
Cornell Laboratory for
Accelerator-based Sciences
and Education

Wilson Lab Lighting

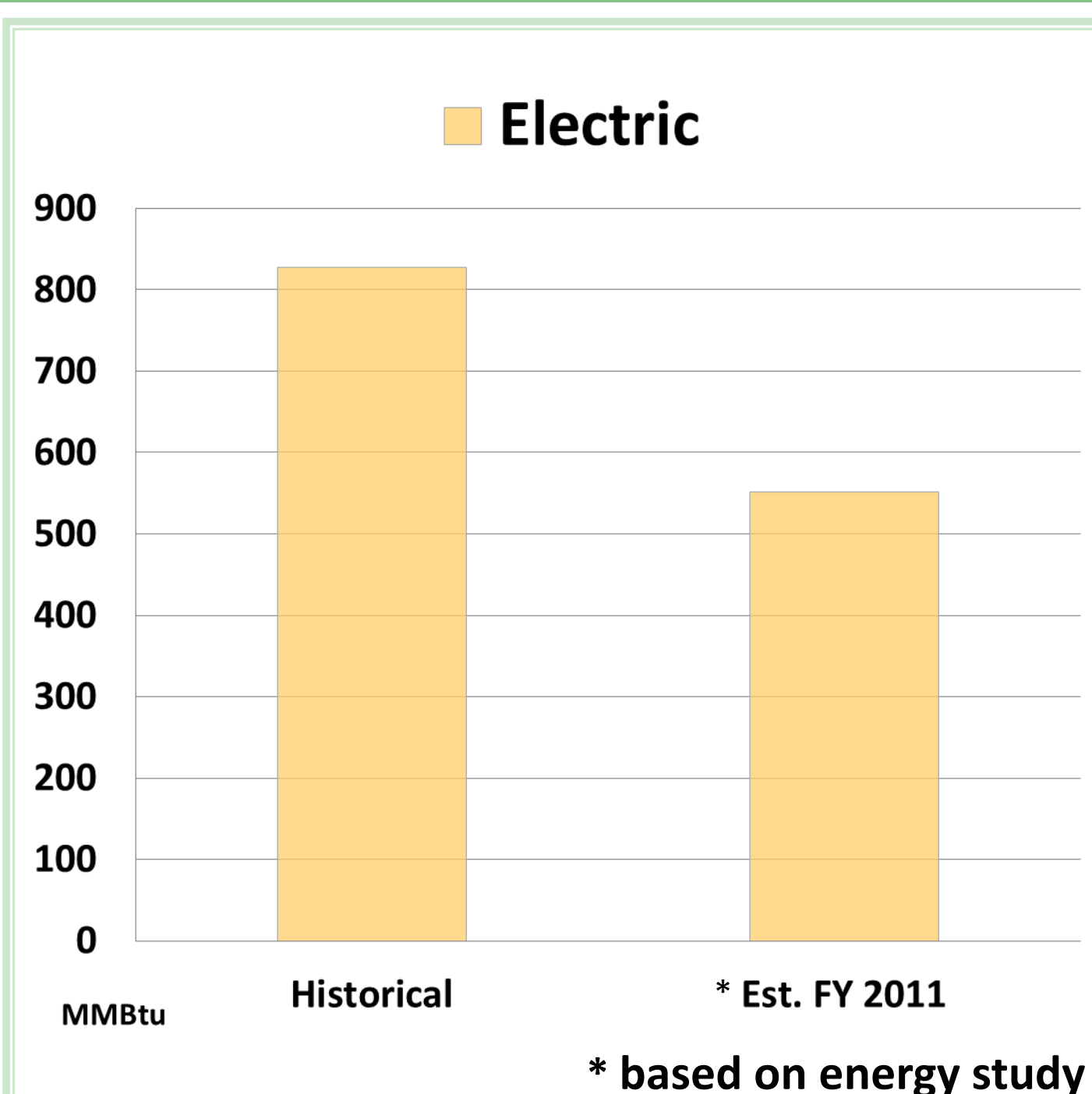


Hans Bethe and Boyce McDaniel, professors of physics (PHYS), bicycling in the Wilson Synchrotron, 1968.

[Map](#)

[Utilities Costs and Use](#)

Wilson Lab Lighting:
Total Energy Use
Pre & Post ECI



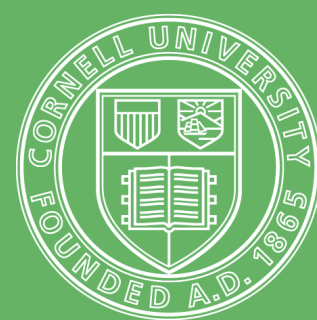
Wilson Lab Lighting: ECI Savings Table

Utility	Historical Energy Use (MMBtu)	2011 Energy Use (MMBtu)	Energy Savings (MMBtu)	% REDUCTION	Historical Cost (billed rates)	*Est. FY 2011 Cost (billed)	Annual Savings \$	Equivalent # Homes
Electric	800	551	249	31%	\$17,000	\$11,300	\$5,700	6
Steam								N/A
Chilled Water								N/A
Totals	800	551	249	31%	\$17,000	\$11,300	\$5,700	6



Energy use based only on affected systems within project scope

Equivalent # Homes Savings based on average home use: 40 MMBtu Electric ▪ 90 MMBtu Heat ▪ 50 MMBtu Cooling



Cornell University

Energy and Sustainability
energyandsustainability.fs.cornell.edu

2/2014

