

Energy Conservation Initiative (ECI) Project Summary

Olin Library Controls Upgrade, Facility 3680

What We Did: We replaced controls on all central air handling systems that were well past end of life and were in extremely poor condition. Outside air flow stations and control dampers, control valves, and control logic were added to accurately control temperatures and ventilation air. Variable speed drives were added on a number of air handler fans.

What It Cost: \$737,200

How Long It Took: 10 months. Completed February 2013.

What We Saved: \$139,000 and 227 tons/per year carbon equivalent annually.

Benefits: The project addressed severe deferred maintenance issues along with energy waste associated with non-functioning

controls. The new outside air flow control ensures ventilation air at the correct quantities while minimizing energy usage.

The Olin Library controls were in a severely deteriorated condition. With the completion of the ECI project we now have accurate control and full visibility of control logic and controlled parameters, ease of scheduling, and an improved level of occupant comfort. What a huge step forward while minimizing energy usage!

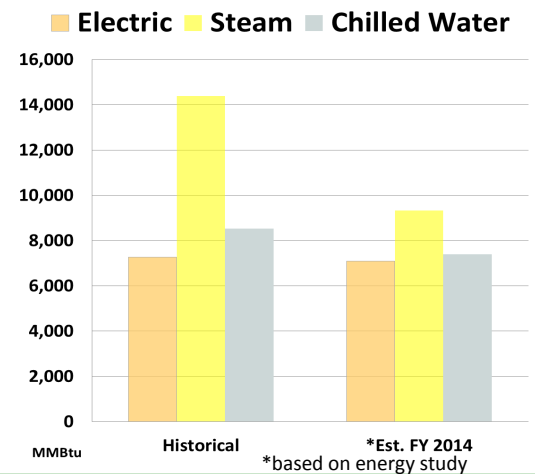
Phil Koons
Library Facilities Director

Olin Library



[Map](#)
[Utilities Costs and Use](#)

Olin Library Controls Upgrade
Total Energy Use - Pre & Post ECI



Olin Library Controls Upgrade: ECI Savings Table

Utility	Historical Energy Use (MMBtu)	*FY 2014 Energy Use (MMBtu)	Energy Savings (MMBtu)	% REDUCTION	Historical Cost (billed rates)	*FY 2014 Cost (billed)	Annual Savings \$	Equivalent # Homes
Electric	7,277	7,099	178	2%	149,000	146,000	4,000	4
Steam	14,388	9,329	5,059	35%	325,000	211,000	114,000	56
Chilled Water	8,524	7,396	1,128	13%	156,000	136,000	21,000	23
Totals	30,189	23,823	6,365	21%	631,000	492,000	139,000	83



Energy use based on project scope
Equivalent # Homes Savings based on average home use: 40 MMBtu Electric • 90 MMBtu Heat • 50 MMBtu Cooling

