

# Energy Conservation Initiative (ECI) Project Summary

## Plant Science Space Control Upgrades, Facility 1022

**What We Did:** The controls in 30 laboratory spaces were completely replaced and occupancy sensors added to significantly reduce energy use. All of the laboratory space controls were outdated and in poor condition. The new controls cut air flows in half and relax space temperatures when rooms are not occupied. The new controls also reset fume hood air flow. Typical energy savings will be 30-40% compared to constant air flow.

**What It Cost:** \$65,000

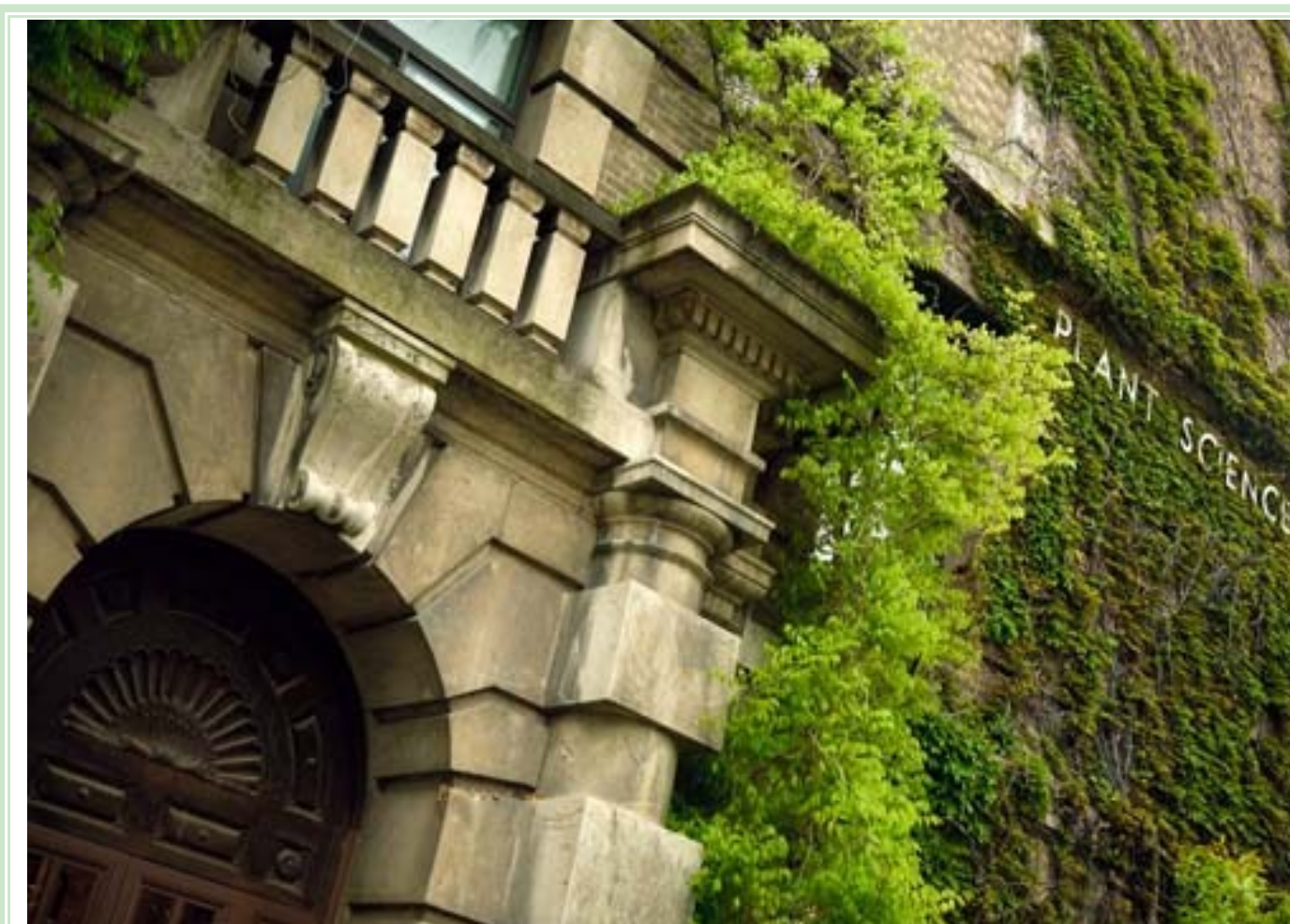
**How Long It Took:** 3 months. Completed October 2011.

**What We Saved:** \$28,000  
**Benefits:** Along with energy and maintenance savings, this project increased laboratory safety and decreased air noise in the spaces.

The spaces with the controls upgrade perform so much better than before. Comfort has improved as well as the ability to verify space temperature and ventilation control.

Brian Flannigan  
 Manager of Facilities

### Plant Science Building

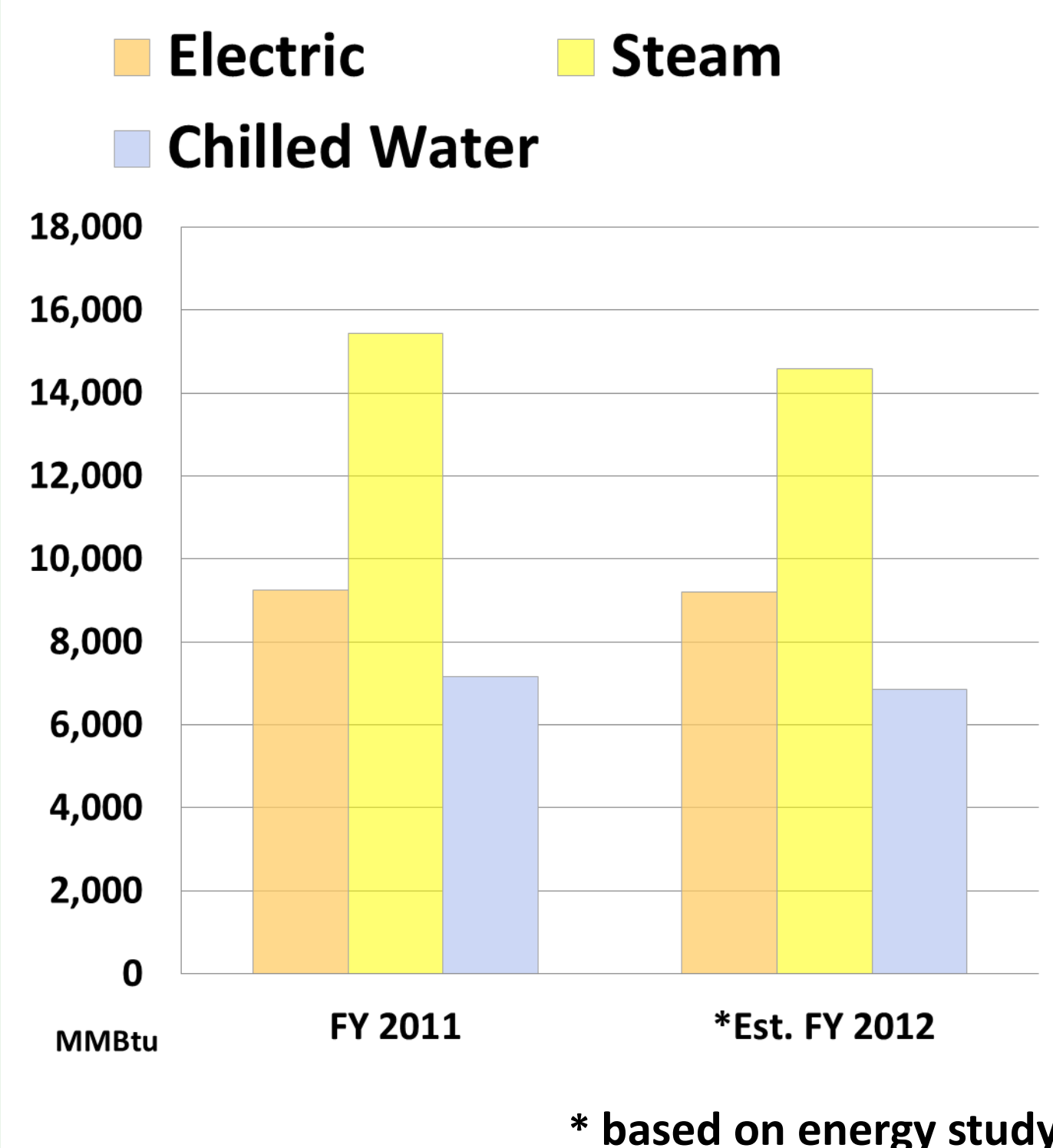


[Map](#)

[Plant Science Utilities Costs and Use](#)

### Plant Science Space Control Upgrades

Total Energy Use Pre & Post ECI



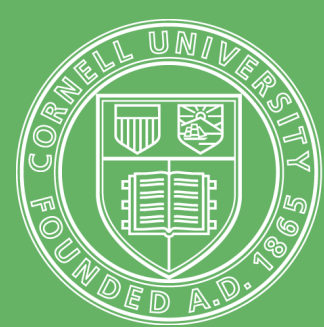
### Plant Science Space Control Upgrades: ECI Savings Table

Utility	Historical Energy Use (MMBtu)	FY 2011 Energy Use (MMBtu)	Energy Savings (MMBtu)	% REDUCTION	Historical Cost (billed rates)	Est. FY 2011 Cost (billed)	Savings \$	Equivalent # Homes
Electric	9,248	9,203	44	0.50%	\$190,000	\$189,000	\$910	1
Steam	15,427	14,576	851	5.50%	\$349,000	\$330,000	\$19,000	10
Chilled Water	7,153	6,685	468	6.50%	\$119,000	\$111,000	\$7,800	9
<b>Totals</b>	<b>31,828</b>	<b>30,464</b>	<b>1,363</b>	<b>4.3%</b>	<b>\$658,000</b>	<b>\$630,000</b>	<b>\$28,000</b>	<b>20</b>

Energy use based on project scope



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



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