

# Energy Conservation Initiative (ECI) Project Summary

## Growth Chamber Phase 2

**What We Did:** This project retrofit a number of growth chamber's lighting systems to make the lighting more efficient. A previous growth chambers project retrofit refrigeration controls in a large quantity of chambers along with lighting. The lighting in these chambers typically is on 16 hours per day, 7 days per week and represents a great opportunity for efficiency improvement. The project typically replaced T12 VHO fluorescent lamps with magnetic ballasts with high efficiency T5 and electronic ballasts.

**What It Cost:** \$90,000

**How Long It Took:** 6 months. Completed June 2012.

**What We Saved:** \$42,000 and 270 tons/ per year carbon equivalent annually.

**Benefits:** The outdated fluorescent lighting results in high lamp maintenance and high energy costs. The installation of new, highly efficient T5 lamps and electronic ballasts results in more uniform lighting over time, along with less maintenance and energy cost in the chambers.

**This project greatly improved the light intensity and usability of many of our old, dimly-lit growth chambers with a significant reduction in annual cost.**

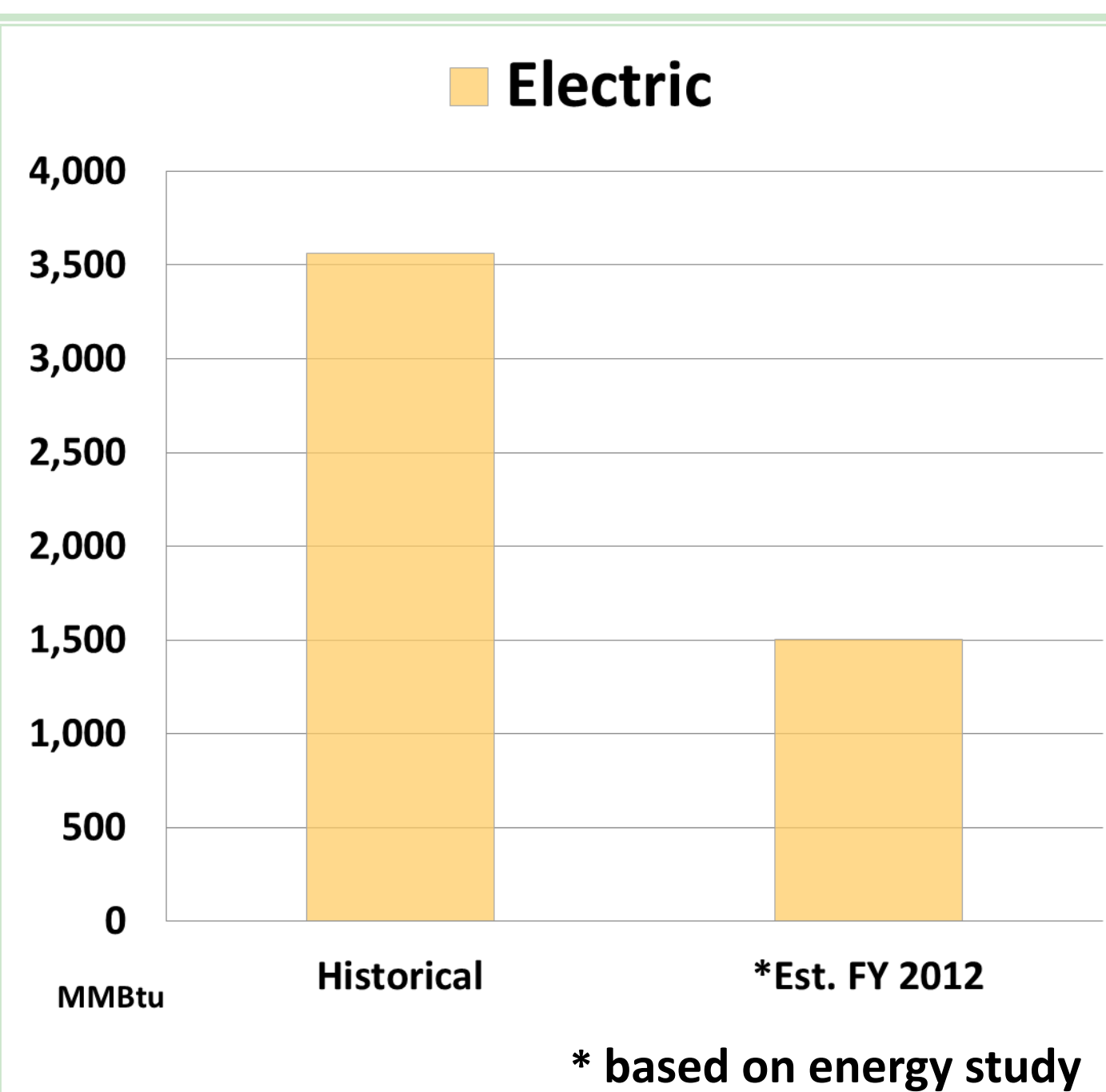
**Nick VanEck,**  
Growth Chamber Supervisor

## Growth Chamber Phase 2



[Utilities Costs and Use](#)

Growth Chamber Phase 2  
Total Energy Use  
Pre & Post ECI



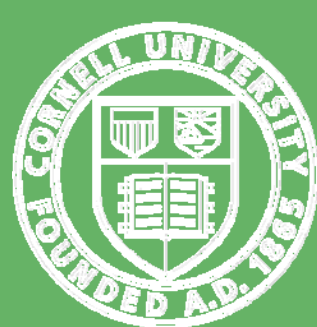
## Growth Chamber Phase 2: ECI Savings Table

Utility	Historical Energy Use (MMBtu)	Est. FY 2012 Energy Use (MMBtu)	Energy Savings (MMBtu)	% REDUCTION	Historical Cost (billed rates)	*Est. FY 2012 Cost (billed)	Annual Savings \$	Equivalent # Homes
Electric	3,600	1,500	2,100	58%	73,000	30,800	42,200	53
Steam								N/A
Chilled Water								N/A
<b>Totals</b>	3,600	1,500	2,100	<b>58%</b>	73,000	30,800	42,200	<b>53</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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