

Energy Conservation Initiative (ECI) Project Summary

Growth Chamber Phase 3, Facility 1022

What We Did: In collaboration with the Cornell University Agricultural Experiment Station we replaced 10 outdated inefficient growth chambers with 6 new efficient chambers. The antiquated chambers used outdated controls, inefficient lighting and mechanical refrigeration. The new chambers utilize efficient T-5 lighting, digital controls and cooling provided by Cornell's district cooling system.

What It Cost: \$300,000

How Long It Took: 6 months. Completed December 2012.

What We Saved: \$37,000 and 237 tons/per year carbon equivalent annually.

Benefits: Energy use was decreased by over 90%. Maintenance costs will be significantly reduced. Lighting level was increased by 50% improving research.

We jumped at the chance to recycle 10 of our least efficient growth chambers in exchange for 6 new highly-efficient units that will enhance plant research at Cornell for decades.

Nick VanEck,
Growth Chamber Supervisor

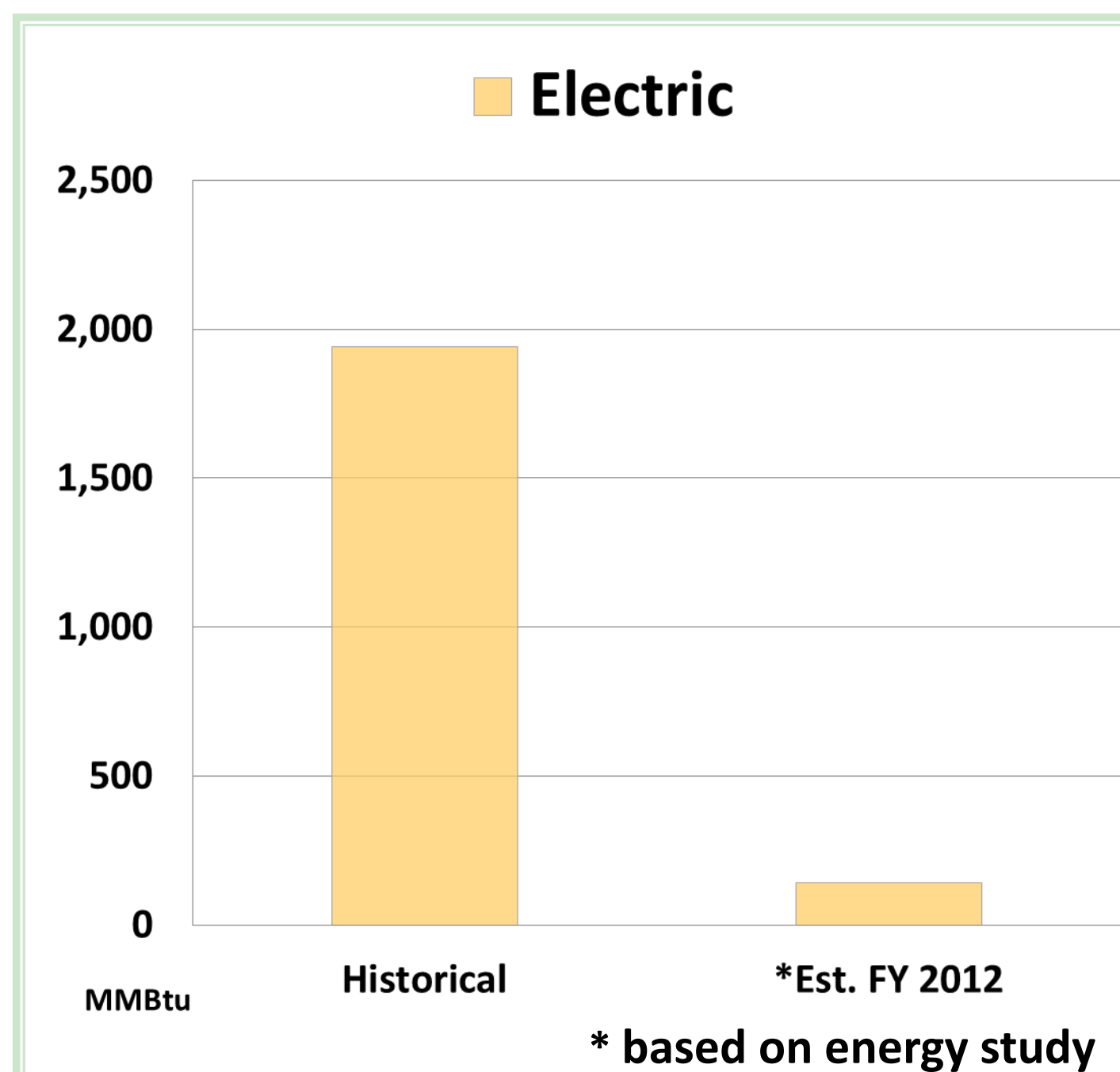
Growth Chamber Phase 3



[Map](#)

[Utilities Costs and Use](#)

Growth Chamber Phase 3
Total Energy Use
Pre & Post ECI



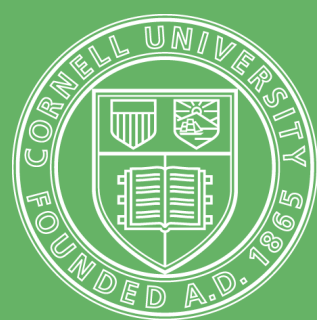
Growth Chamber Phase 3 ECI Savings Table

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	1,900	140	1,760	93%	39,800	2,900	37,000	44
Steam								N/A
Chilled Water								N/A
Totals	1,900	140	1,760	93%	39,800	2,900	37,000	44



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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