

Energy Conservation Initiative (ECI) Project Summary

Ives Hall Complex , Facility 1003, 1007, 1007A, 1007E, 1007R, 1008

What We Did:

We implemented energy conservation measure throughout the Ives Hall Complex (Ives Hall, Ives East, Ives West, Dolgen Hall, IRL Conference Center and IRL Research). The existing building controls system was outdated and in need of repair. 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 upgraded on a number of air handler fans. Space controls were upgraded throughout the complex.

What It Cost: \$1,680,000

How Long It Took: 10 months. Completed April 2014.

What We Saved: \$280,000 and 410 tons/per year carbon equivalent annually.

Benefits: The old controls in the building were a mixture of older digital and pneumatic

technology that resulted in higher than necessary energy usage, maintenance issues, and maintenance costs. The new controls allow energy savings strategies, full web access for operations and maintenance, and much higher reliability. Air flow measurement allows accurate control of ventilation air with changes in occupancy, along with proper tracking of supply and return air flows.

The Energy conservation project updated our building controls that were nearing the end of their useful life. The new controls will reduce our energy cost while increasing occupant comfort and reducing maintenance issues.

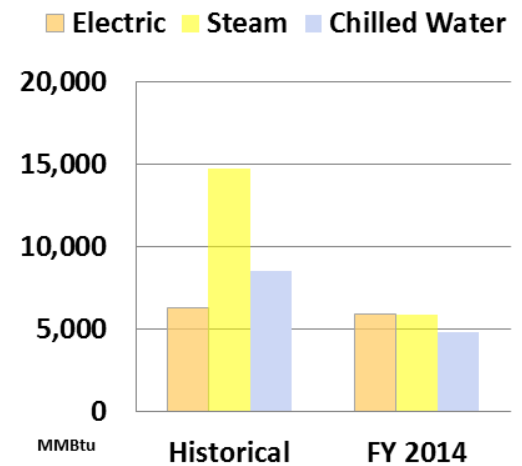
David Lippincott
ILR-Ives Facilities
Manager of Facilities

Ives Hall Complex



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

Ives Hall Complex
Total Energy Use - Pre & Post ECI



Ives Hall Complex: 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 | 6,300 | 5,900 | 400 | 6% | \$130,000 | \$120,000 | \$10,000 | 10 |
| Steam | 14,800 | 5,900 | 8,900 | 60% | \$330,000 | \$130,000 | \$200,000 | 99 |
| Chilled Water | 8,600 | 4,800 | 3,800 | 44% | \$160,000 | \$90,000 | \$70,000 | 76 |
| Totals | 29,700 | 16,600 | 13,100 | 44% | \$620,000 | \$340,000 | \$280,000 | 185 |



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

