

Energy Conservation Initiative (ECI) Project Summary

Steam Pipe Insulation Repair and Replacement

What We Did

Surveys of mechanical rooms in buildings were completed to identify areas where insulation could be improved cost effectively. We then replaced worn or missing insulation in 64 mechanical rooms throughout the academic, research and teaching buildings and campus life facilities.

What It Cost

Academic research and teaching buildings — \$345,000
Campus Life Facilities — \$30,000.

How Long It Took

16 months

What We Saved

\$290,000 per year at the billed utility rate, yielding a 1.2 year pay-back.

Description of Photos

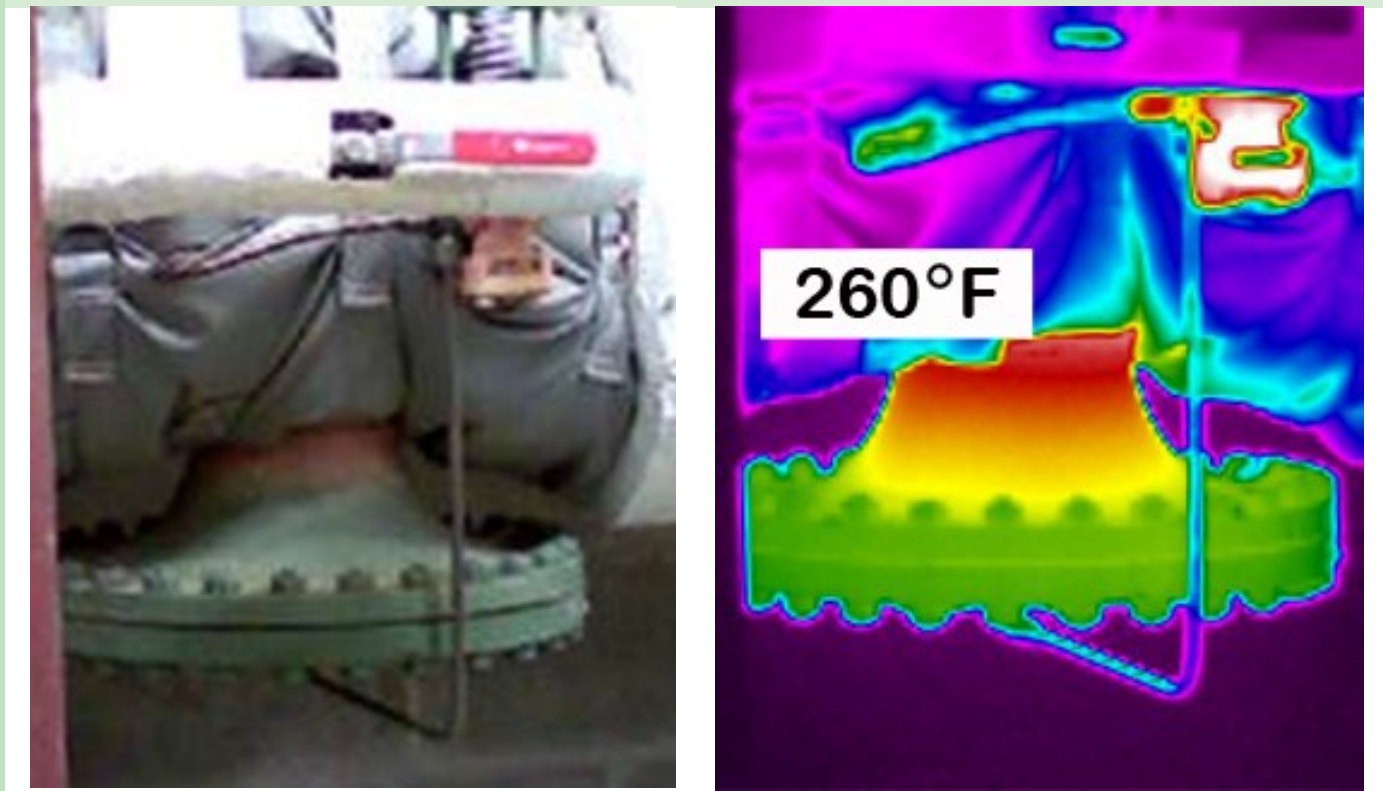
One of the many steam components insulated during the steam pipe insulation project. Insulating the Steam PRV (pressure reducing valve) saves the equivalent energy that would heat a typical one family home for two months.

The insulation project has made the mechanical rooms much more comfortable and safer to work in, while creating significant energy savings.

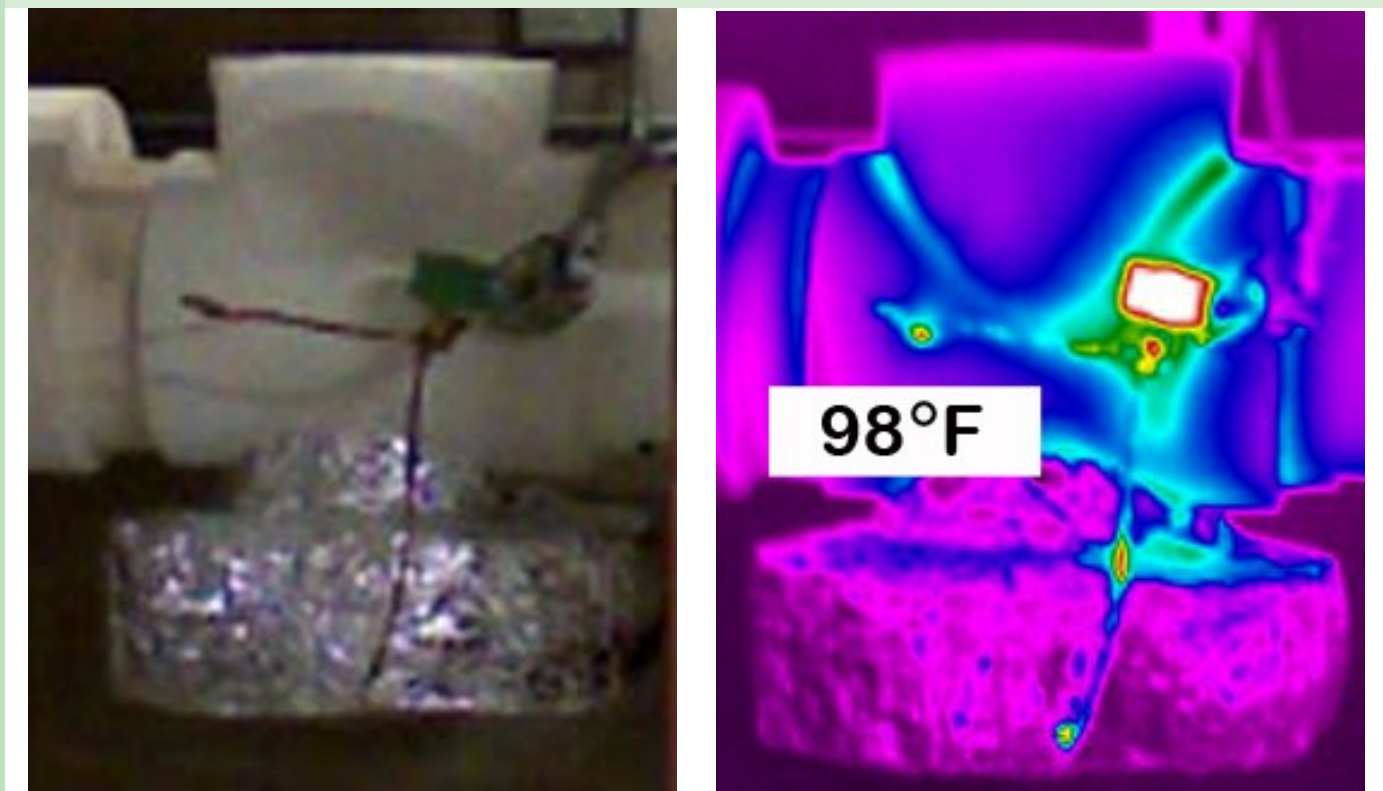
Rick Bishop, General Foreperson
 Control shop

Infrared

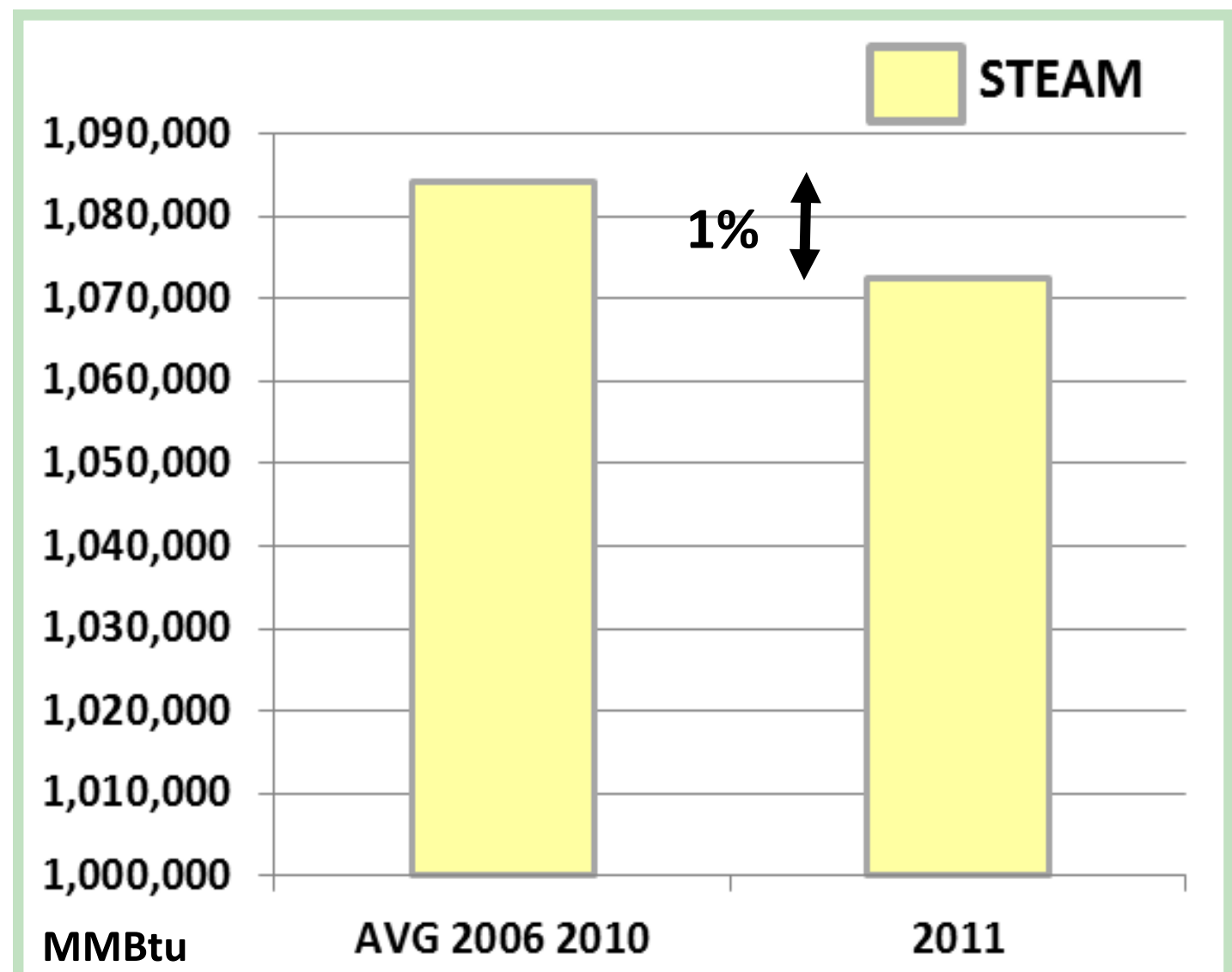
BEFORE Insulation -Surface up to 260 °F



AFTER Insulation -Surface down to 98 °F



Total Campus Heating Sales & Energy Use • Pre & Post ECI



Steam Pipe Insulation Repair and Replacement: ECI Savings Table

Utility	Historical Energy Use (MMBtu)	FY 2011 Energy Use (MMBtu)	Energy Savings (MMBtu)	% REDUCTION	Historical Cost (billed rates)	FY 2011 Cost (billed)	Savings \$	Equivalent # Homes
Steam	1,084,000	1,072,500	11,500	1%	\$26,400,000	\$26,110,000	\$290,000	100
Electric								NA
Chilled Water								NA
Totals	1,084,000	1,072,500	11,500	1%	\$26,400,000	\$26,110,000	\$290,000	100

