

REAL WORLD RESULTS

Ever Green[®] Cut 'n Wrap[™] Insulation Saves Hospital Over \$200,000 Annually!

It's a fact that the Health Care sector in the U.S. utilizes energy at a far greater rate than many other sectors. Recognizing that this was not sustainable, a large health care provider in Massachusetts embarked on a 10-year master energy plan. Located next to Harvard Medical School, the hospital is consistently ranked as one of America's top hospitals by U.S. News & World Report.



LARGE ENVIRONMENTAL FOOTPRINT

With over half its power being generated using fossil fuels, the hospital has a large environmental footprint. The sustainability initiatives outlined in the Energy Master Plan required the undertaking of numerous projects to reduce the hospital's impact on

The insulation is estimated to save the hospital over \$200,000 in energy costs per year and reduce CO₂ emissions by over 700 tons annually. jects to reduce the hospital's impact on the environment. One of the projects was the installation of Auburn Manufacturing's (AMI) Ever Green[®] Cut 'n WrapTM removable/reusable insulation on the hospital's hot pipe components. The insulation is estimated to save the hospital over \$200,000 in energy costs per year and reduce CO₂ emissions by over 700 tons annually.

STEAM DISTRIBUTION SYSTEM

Steam for the hospital is produced by MATEP, a total energy facility and micro-grid providing steam to eight medical buildings. The hospital receives and distributes steam throughout its buildings at various pressures. Prior to the sustainability initiative, a substantial amount of the hospital's steam system was uninsulated. "The heat loss was significant due to the amount of uncovered components," said Matt Delaney, Sales Representative, at AMI. "The temperature in the mechanical rooms was in the low 90 degrees and over 100 degrees in the steam tunnel. It exceeded 120 degrees in a few areas of the tunnel."

DECISION TO INSULATE

To reduce heat loss, energy costs and energy emissions, the hospital decided to insulate between 500 and 600 steam system components including valves, flanges, pressure regulators, strainers, elbows and steam traps. These were located in the hospital's steam tunnel and north and south mechanical rooms. "Another important reason for insulating," said Delaney, "was for safety. Personnel protection is important to the staff especially when servicing very hot equipment and components."



The modular design of the Cut 'n Wrap insulation makes it easy to install. And, it makes servicing components and pipe testing quick and simple to re-insulate.

ADVANCED CALCULATIONS VALIDATE DECISION

Looking to insulate approximately 55-70% of the piping components, the hospital connected with AMI and requested a series of calculations that would show the potential for energy savings and carbon reductions by insulating with Ever Green[®] Cut 'n WrapTM. AMI used its 3E Plus software program to calculate the MMBtu savings, the dollar savings, the material and labor cost, the payback in months, and CO₂ emission reduction. "The hospital was very pleased with the estimated savings and gave the go-ahead to install Cut 'n Wrap," said Delaney.



INSTALLATION

"The modular design of the insulation makes it easy for insulation contractors to install. And, because all the work is done onsite, it

The average time to insulate each of the complex components was less than 30 minutes. because all the work is done onsite, it installs quickly, "said Delaney. Installing Cut 'n Wrap is much faster than custommade insulation covers keeping the labor costs down. The job was completed in approximately 20 workdays using 2 or 3 men per day. "This quantity of custom made components would probably have taken over 3 months to install," added Delaney.

SAVINGS AND REDUCTIONS

By covering the pipe components in the steam tunnel and north and south mechanical rooms, the hospital will realize a heat loss savings of approximately 6,500 MMBtu, or \$200,000 per year. The annual CO₂ emissions will be reduced by 700 tons per year. The savings were calculated on the steam system running 100% of the year due to the sterilization process in the hospital. **"Payback was calculated to be about to 5-6 months which is much faster than the payback from traditional insulation covers**," said Delaney. "The hospital was very pleased with the savings afforded by this project and will consider using Cut 'n Wrap in a number of additional mechanical rooms in the future."



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Once the insulation was installed, the temperature in the mechanical room was significantly reduced.



- Reduce Heat Loss by 85%
- Install and Fabricate Onsite in Minutes, Not Hours

U.S. Manufacturer!

- Truly Removable and Reusable
- Payback in Months, Not Years
- U.S. Made



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