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How making your facility energy-efficient pays for itself

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Facility, plant & energy managers have the difficult task of making their property work efficiently, yet frugally. This is a daunting responsibility, as energy costs seem to increase and budgets get tighter. Environmental concerns and energy efficiency have also made their way up the list of priorities for these managers. Often, the cost of making the necessary installations and upgrades to improve a facility's energy efficiency can deter him or her from doing so.

Fortunately, federal and state tax credits & incentives for these energy efficient installations and upgrades have made the decision slightly easier to make. Combining federal and state incentives and the installation of an effective product that guarantees energy savings can result in an improvement that pays for itself. But what products can guarantee or prove energy efficiency?

The U.S. Office of Energy Efficiency & Renewable Energy released an assessment of steam trap performance. In it, they stated, "Approximately 20% of the steam leaving a central boiler plant is lost via leaking traps... Fixed test equipment, allowing continuous monitoring and evaluation, can reduce losses to less than 1%." Thermaxx, LLC, headquartered in West Haven, Conn., developed a patent pending device called the Smart Jacket that insulates steam traps and other steam components while digitally monitoring temperatures, evaluating health status and notifying facility managers of irregular behavior. The Smart Jacket provides its clients with hard numbers that prove its efficacy.

The famous Calabro Cheese Corp., located in East Haven, Conn., took advantage of the incentives offered by the state of Connecticut to make their facilities more energy efficient. One phase of Calabro's facility upgrades involved insulating their steam traps. Thermaxx was contracted to insulate nearly 50 steam traps, of which more than 20 were fitted with Smart Jackets. In the first week of monitoring their steam traps with the Smart Jackets, the Calabro Corp. was able to detect a critical steam trap failing, avoiding any costly damages.

Being able to monitor your steam traps while being energy efficient is a great thought, but did the project truly pay for itself? In the case of the Calabro Cheese Corporation's project, state incentives directly paid for 40% of the project. The remaining 60% will be recovered through energy savings in just over 12 months. The natural gas provider of the Calabro Cheese Corp. has confirmed these numbers. Once the cost of the insulation has been recovered, the Calabro Corp. will see an annual energy savings of \$26,145.75. In this case, being energy efficient not only quickly pays for itself, but also can save a facility a substantial amount of money for years to come.

A safer workplace and a reduction of CO₂, the primary greenhouse gas emitted through human activities, can be added to the countless benefits of making your facility more energy efficient. If you are considering making similar upgrades to your facility, visit www.dsireusa.org for a list of incentives available in your state.

Brian Bannon is the CEO of ThermaXX, LLC of West Haven, Conn.