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ENERGY STAR Success Story: HEI Hotels & Resorts



HEI Hotels & Resorts is a growing hospitality company with 30 hotel properties in 13 states. Since launching its partnership with ENERGY STAR in 2006, HEI has expanded its corporate commitment to become an industry leader in sustainability initiatives, demonstrating that environmentally sound projects can be financially sound projects as well. HEI has earned the ENERGY STAR for two hotel properties, and has been recognized by the Association of Energy Engineers with the 2009 International Corporate Energy Management Award.

Energy Management with ENERGY STAR

HEI has integrated the ENERGY STAR strategic approach to energy management in all facets of its business – from procurement of ENERGY STAR qualified lighting, HVAC, computer, and commercial food service equipment, to integrating the ENERGY STAR Portfolio Manager tool into its internal energy tracking program. In May 2009, HEI launched an energy dashboard to track energy performance of all its hotels based on daily meter readings and other factors, enabling immediate adjustments to optimize performance. The energy dashboard also allows each hotel to see their daily Portfolio Manager 1-100 energy performance rating as well as how much improvement is required to attain the ENERGY STAR.

From 2005 to 2008, HEI energy efficiency projects yielded savings of more than 23,750,000 kWh and over 23,500 tons of CO₂ equivalent emissions across the portfolio. This is enough electricity saved to power 2,366 homes for one year. Projects contributing to these energy efficiency gains include both low-cost measures and larger capital investments:

Energy Efficiency Projects at HEI Hotels		
Upgrade	Cost	Return on Investment (ROI)
Retrofitted over 100,000 fixtures with T-8s and CFLs	\$2,700,000	2 - 2.5 years
Installed guest room HVAC energy management control systems	\$2,300,000	2.5 - 3 years
Installed variable frequency drives on motors	\$300,000	1.5 - 2 years
Upgraded water heating controls and plumbing fixtures	\$190,000	1.5 - 2 years
Installed solar films on windows	\$350,000	4 - 5 years
Continuous upgrades of EMS and Building Automation Systems		

These programs realized significant cost savings in a relatively short period of time. Investments, on average, produced an estimated 2.79-year return on investment (ROI), with corporate management strongly considering any energy efficiency measure that can provide a 3-year ROI. Throughout its hotels, HEI continues to demonstrate how strategic energy management can help organizations to achieve significant financial savings and contribute to environmental stewardship.

Feature Property: Crowne Plaza Riverwalk

One property, the Crowne Plaza Riverwalk in San Antonio, Texas, highlights the significant financial and environmental benefits that can be achieved through smart changes. With 21 floors, 410 guest rooms, and extensive meeting space, this AAA 4-diamond full-service hotel began strategically addressing low-hanging fruit opportunities in 2006 – cleaning HVAC coils, performing energy efficiency lighting upgrades, installing programmable thermostats in guest rooms, and using variable frequency drives on large motors.



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Feature Property: Crowne Plaza Riverwalk (continued)

All of these projects significantly enhanced the hotel's energy performance, all while yielding a 3-year or less ROI. Additionally, the Crown Plaza Riverwalk installed reflective window films. Typically requiring a longer payback period, this measure was found to be cost-effective due to state energy efficiency rebate programs. Organization-wide, HEI has worked with vendors, utilities, and government to receive over \$500,000 in rebates for energy efficiency upgrades for lighting and window films.

Through dedication to energy efficiency, the Crowne Plaza Riverwalk successfully reduced its electricity consumption by 26 percent within a two-year period, and reduced natural gas consumption by 13 percent within four years. This translates into over 2.5 million kWh and 36,000 therms saved, leading to less energy costs, a smaller environmental footprint, and a 12-point improvement on the 1-100 energy performance rating scale in Portfolio Manager.

Employee Engagement and Communications

In addition to operations & maintenance (O&M) measures and energy efficiency investments, HEI pursues staff training across the organization to create a culture of energy awareness, and instill a call-to-action among employees to help save energy. Chief engineers at each of HEI's properties, including at corporate headquarters, have leveraged ENERGY STAR communications resources such as the [Bring Your Green to Work](#) campaign poster and energy saving tip cards to remind employees that even small actions can make a difference. Each month, associates who submit the best energy saving recommendations are rewarded with a financial bonus – increasing staff involvement in proactively seeking energy conservation opportunities, building a range of best practices, and making energy efficiency intrinsic to hotel operations. Employees also reap the benefits of energy savings achieved and quantified by the energy dashboard tool. Each quarter, HEI rewards employees at properties with noteworthy achievements in energy reductions directly with prizes and gift cards.

Continuous Improvement

HEI continues to maintain energy efficiency efforts by benchmarking energy performance in ENERGY STAR Portfolio Manager. To expand sustainability efforts to meet corporate goals, HEI is measuring a company-wide carbon footprint for all 30 hotels and its corporate headquarters, and will launch a social responsibility initiative to reduce its carbon footprint across the company in late-2009.

By instituting preventative O&M programs, strategically investing in energy efficiency, and engaging employees in conservation, HEI is successfully lowering energy costs, reducing carbon emissions, and demonstrating leadership in fighting global warming.

What You Can Do

"Becoming an ENERGY STAR partner not only helped us to develop the energy programs that we have put into place, but also to validate our energy and environmental successes through the energy benchmarking process," says Bob Holesko, Vice President of Facilities, HEI Hotels & Resorts. "Much of our success is tied to our affiliation with ENERGY STAR and use of Portfolio Manager."

Based on the successful practices of ENERGY STAR partners such as HEI, EPA developed the [Guidelines for Energy Management](#) to assist organizations in improving energy and financial performance, providing tools and resources to help at each step of the way.

The first step for all hotel owners and operators is to use [Portfolio Manager](#) to track and assess energy and water consumption, inventory greenhouse gas emissions, and prioritize efficiency improvements.

For more technical recommendations on proven energy efficiency strategies, see the "Hotels" chapter of the [ENERGY STAR Building Upgrade Manual](#) and visit www.energystar.gov/hospitality.