



A Case Study

A leading international hotel chain uncovers significant energy cost savings

The Challenge

A leading chain with over 200 properties across North America was looking to improve its bottom line by reducing energy costs and controlling maintenance costs and to establish a leadership position by proactively managing energy usage and improving its carbon footprint at the same time. It decided to target its energy cost which has a significant impact on its profitability.

The challenge was to identify significant energy cost reductions with ease of implementation and minimal interruption to hotel operations during implementation.

The Solution

Star Energy was engaged to develop a comprehensive energy cost reduction program to deliver sustainable and significant energy cost savings to achieve the client's ambitious target. To ensure that the energy savings are sustained over the lifetime of the retrofit, a rigorous monitoring and tracking system was also developed and implemented. Star Energy also prepared a list of maintenance schedules that helped to optimize the maintenance cost.

A total of 24 locations were selected comprising of various formats of the hotels to represent the entire portfolio

The Result

Utilizing our energy auditing service, a series of energy efficiency improvement opportunities were identified which uncovered up to a 34% reduction in baseline electricity consumption with a 24% IRR on the overall project. A comprehensive rollout plan was also prepared for the other qualifying locations for implementation over the next 24 months.

Profile

The chain has different hotel formats spread across multiple weather zones and has a variety of HVAC and lighting systems. Some of the hotel banners included full-service kitchens.

4 Million Sq. Ft.

Average area of the Pilot locations

\$250,000

Average electricity cost per location

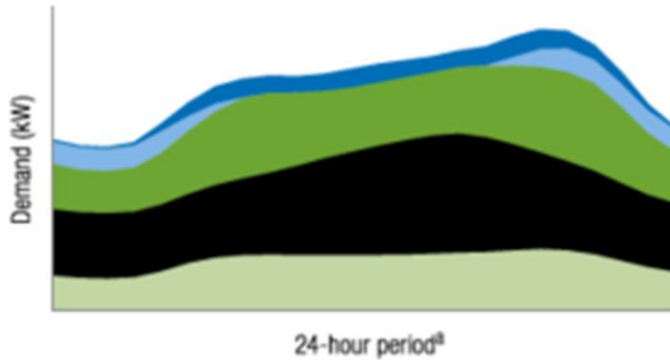
3,900

Total rooms for the pilot

Identified Opportunities

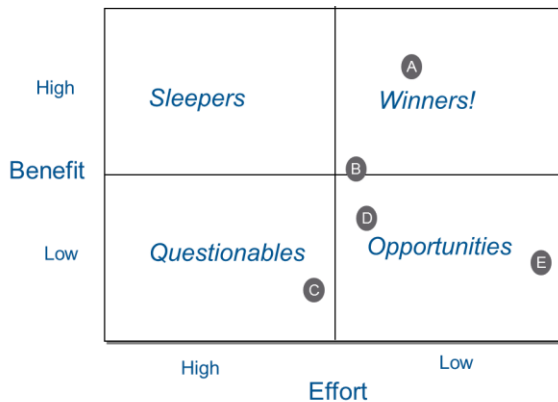


■ Cooking ■ Exterior lighting ■ Interior lighting ■ HVAC ■ Other



Notes: kW = kilowatt.
 a. 24-hour period = midnight to midnight. © E Source; data from ITRON

- A Lighting retrofits
- B HVAC Retro-Commissioning
- C Occupancy based controls
- D Ozone Laundry
- E Energy awareness plan



Highlights

Pilot locations

17 kWh/Sq.Ft.

Average electricity use index

27% Average

savings on annual electricity cost of the location. Range 15% - 34%

Less than **4** years

Average simple payback from all identified measures.

24% IRR

\$1.5 to \$5

RevPAR incremental improvement



Star Energy Solutions Inc is an energy management company specializing in delivering comprehensive energy cost reduction programs throughout North America. Our experience in working with major clients has helped us to develop customizable programs that not only maximize returns on retrofit capital but also improve asset values and the life of mechanical and electrical systems. We have worked with major utilities across the US and Canada to optimize the eligibility of our programs for incentives to reduce implementation costs and improve paybacks. Part of our program customization relates to our client's annual energy reduction targets and their available retrofit capital.

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