



# Our Solar Film Solution Cools PM Hospitality Strategies Select Service Hotel

Annualized energy savings are equivalent to 53 metric tons of greenhouse gases reduced, or 11 cars removed from the road.



## Asset Facts

Date Built	2004
Square Feet	78,000
Number of Rooms	91 rooms
Asset Type	Select Service Hotel

## Project Facts

Annual Energy Savings	75,591 kWh
Annual HVAC Energy Reduction (%)	32
Annual Building Energy Savings (%)	7
Annual Savings	\$8,466
Gross Investment	\$22,950
Rebates	\$5,852
Rebates as % of Total Project Cost	25
Net Investment	\$17,098
Net Payback	2.0 years

**ROI 49.5%**

## Challenge

The 91 room select service hotel located in the mid-Atlantic United States was constructed in 2004 and is primarily comprised of suites for long- and short-term guests.

- The hotel HVAC is comprised of PTAC units with on-board controls in every guest room, allowing each guest to control their room temperature and set point
- The building's clear, double-pane glass windows result in significant solar heat gain in the guestrooms during the summer.

## Our Solution

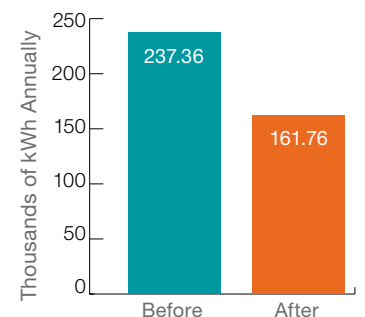
Un-tinted double-pane windows are not very effective at rejecting solar heat and preventing the conduction of thermal energy. Accordingly, in cold weather the windows let heat escape from the room, while in the summer, they let heat in through solar radiation.

- Low-e solar film was installed on windows on the east, south, and west façades of the building, including stairwell and vestibule windows. The solar film helps reject solar heat and prevents heat loss in these spaces, reducing the demand on the PTAC units
- The solar film installation was completed in nine days at the end of May 2013, without any impact on guest experience
- Green Generation Solutions coordinated all rebate and incentive capture activities with a state-funded program to secure funding for 25% of total project costs
- The solution was measured and verified with revenue grade power meters in two side-by-side rooms. One room included the solar film solution while the other was left without film to provide a baseline comparison for consumption. The meters collected data every 15 minutes on energy consumption in the rooms for 18 months.

## Energy Savings – 32%

- The solar film saves the building an annual 75,591 kWh, or \$8,466
- The reduction in energy use corresponds to a 32% decrease in HVAC energy use, and a 7% drop in overall building consumption
- With the help of incentives, the payback for the project was just over two years.

Annual HVAC Electricity Consumption



**How can we help you?** Please contact Green Generation Solutions at [info@greengenerationsolutions.com](mailto:info@greengenerationsolutions.com) or 301.202.2930