

Case Study

Business Case for Single-Story Retail Site

ENRG Blanket® Enables Retail Sites to Reduce HVAC Consumption by 34% or More and Reduce Carbon Emissions by Over 10 Metric Tons in a Year



The Challenge

The customer wanted to reduce energy consumption and improve thermal comfort in a single post-office, while adhering to aggressive environmental goals and meeting their ROI requirements. This 11,000-square foot post-office was constructed in 1997. It is a single-story building that is well insulated and served by three 12-Ton packaged air conditioners with gas heat, electric cooling, and economizers.

The Solution

PCES completed a detailed site audit, followed by a measurement and verification (M&V) analysis of branch HVAC energy consumption. Approximately, 7,790 sq. ft. of ENRG Blanket was installed over the drop ceiling, covering roughly 70% of the occupied space. The ENRG Blanket was selected to optimize the building's thermal performance based on its operational characteristics and the weather patterns in the building's geographic location. The ENRG Blanket was installed in less than 3 hours in one evening, with no disruption in post-office operation. M&V analysis of HVAC energy consumption resumed after the installation to validate the ENRG Blanket's performance.

The Results

The impact of ENRG Blanket on the HVAC energy consumption was immediate. Post installation Measurement and Verification (M&V) indicated a significant decrease in HVAC current consumption. After accounting for annual weather patterns, the project resulted in a total of 34% reduction in HVAC consumption (14,517 kWh/yr).

% HVAC Energy Savings	34%
Annual Energy Savings	\$3,194
Verified Energy Savings	14,517 kWh/year
Expected 10-year Energy Saving	\$31,940
Avoided Carbon Dioxide Emissions	10 metric tons/year
Additional Benefits	<ul style="list-style-type: none"> • 5 years ROI • Maintenance Free

