

»Savings Results*:

- 16,100 kWh savings per year
- \$2,254 annual electric cost
- \$6,300 cash incentives from Pepco C&I Energy Savings Program

For information on the Pepco C&I Energy Savings Program please go to our site: pepco.com/business or call: 866-353-5798

LOWE'S, GAITHERSBURG HVAC EFFICIENCY UPGRADE

»Overview:

Lowe's Home Improvement Stores are corporate leaders when it comes to making their facilities energy efficient. In 2009, the company was awarded the 2009 ENERGY STAR® and WaterSense® Retail Partner of the Year awards. Lowe's manages more than 1,725 stores and has 238,000 employees in the United States, Canada and Mexico. In 2008, they established a facility-driven program called "Lowe's Energy Awareness Delivers Savings", or "LEADS". The program provides education in interior lighting, HVAC, and other areas. In 2009, Lowe's employees reduced energy use by approximately 140 million kilowatt-hours and realized a total cumulative cost savings for energy and water bills of approximately \$14 million.

Lowe's participated in the Pepco C&I Energy Savings Program with a project that involved the installation of high efficiency packaged rooftop HVAC units. The high-efficiency units are more expensive than standard HVAC units, but they conserve energy resources and help reduce carbon emissions from electric generation. By using less electricity, everyone wins. Energy resources are conserved, the environment benefits, customers get better prices, and Lowe's becomes a stronger corporation and a dedicated environmental steward.

»Project:

This project involved seven large high-efficiency rooftop replacement units at an existing Lowe's store in Gaithersburg, MD. Installation of more efficient units reduces electricity usage, demand peaks and cooling costs. Lowe's management took a proactive approach for this project; instead of waiting for the existing inefficient HVAC units to fail, they invested in high-efficiency replacement units. The new HVAC units are controlled by an automated energy management system to enhance system control and efficiency. Unit economizers were also installed to promote additional efficiency. Economizers can significantly reduce compressor run hours, and can result in additional savings on cooling costs. The economizers introduce cooler outside air into the building when the inside temperature exceeds the outside temperature, therefore, the unit compressors do not run needlessly when cool outside air is available.

*Assumption of average cost of \$.0.14 cents per kWh used to figure annual electrical savings.

»Results:

The installation of more efficient rooftop HVAC units has reduced cooling costs, improved indoor air quality, improved the store comfort level for employees and customers, and helped to conserve valuable energy resources. Savings from this project are conservatively projected at 16,100 kWh and \$2,254* per year. Actual savings may be much greater with the optional system enhancements, including the economizers and automated energy management system (EMS).

»Lessons Learned:

Lowe's is a national retail chain with numerous locations. An ongoing national energy management program that provides efficient equipment and energy-efficient upgrades will have a significant impact in a number of areas. Energy costs will be reduced in most store locations and even small improvements in building efficiency will be very significant across a large number of retail locations. Lowe's efficiency program combined with the reduction of generation plant emissions will have a national effect in terms of energy conservation, reduced stress on the grid, and a reduced carbon footprint.



Lowe's
Gaithersburg, MD