



CASE STUDY

Staples Warehouse Hanover, Maryland



In July 2008, Staples acquired Corporate Express, one of the world's leading suppliers of office products to businesses and institutions. Following the acquisition, Staples contracted with GreenTech Energy Services to install energy efficiency systems in former Corporate Express facilities, raising them to the same standards as other Staples' facilities.

Lights in the company's 200,000-square-foot warehouse in Hanover, MD, were primarily 400-watt metal halides without sensor controls, operating 24 hours a day, 5 days a week. GreenTech replaced those fixtures with state-of-the-art T5 fluorescent lamps, which effectively maintain light levels in areas with high ceilings. In addition, sensors were installed in all aisles, and office fixtures were re-lamped with 28-watt T8's.

The retrofit enhanced the quality and level of lighting throughout the facility, lowered energy usage and costs, and reduced life-cycle costs. Employees also report that spaces appear brighter and more evenly lit, with less glare and flickering. The program is expected to pay for itself in a year and a half.

THE SAVINGS	
Total Program Costs	\$184,052
Total Payback Period	1.5 years
KW Saved	117
KWH Saved	901,086
Energy Savings	\$94,614
Operational Savings	\$5,522
Total Savings	\$100,136

ENVIRONMENTAL IMPACT	
Reduction in Carbon Dioxide (pounds)	1,351,629
Reduction in Sulfur Dioxide (grams)	5,046,081
Reduction in Nitrogen Oxide (grams)	2,252,715

“The associates are very happy with the retrofit. They report that the lighting is brighter and as close to natural sunlight as you can get. The project itself ran very smoothly – Greentech worked around our schedules and completed the job quickly.”

**Dan Hercher, Fulfillment
Center Manager**



Hanover Electric Usage Report

Year-Over-Year Usage/Day Comparison

Site	Hanover Fulfillment Center
Type	Usage per day

Est 2009 kWh Usage	2,000,490
Rate	\$0.13
Est lbs CO2/kWh	2.00

Month	Year		Var%
	2008	2009	
Jan	6940	6390	-7.9%
Feb	6683	5989	-10.4%
Mar	6434	5719	-11.1%
Apr	6309	5979	-5.2%
May	7168	6320	-11.8%
Jun	6834	6178	-9.6%
Jul	7634	7010	-8.2%
Aug	6580	6627	0.7%
Sep	7322	4438	-39.4%
Oct	6560	3983	-39.3%
Nov	5850	3638	-37.8%
Dec	5820		
YTD	6,756	5,661	-16.2%

Usage Reduction	\$/Year Savings
10.0%	\$ 25,006.13
20.0%	\$ 50,012.25
30.0%	\$ 75,018.38
40.0%	\$ 100,024.50
50.0%	\$ 125,030.63

Usage Reduction	Annual Equivalent Trees Planted
10.0%	8,335
20.0%	16,671
30.0%	25,006
40.0%	33,342
50.0%	41,677

Hanover Fulfillment Center
Electric Usage Per Day Purchased from Utility

