



With Utility Partnership, Comprehensive Energy Overhaul Helps REIT Realize Savings

We were able to reduce energy cost and consumption by 20%.

The annual energy savings exceeded \$90,000.



Asset Facts

Date Built	2004
Square Feet	142,002
Asset Type	Office and Flex Space

Project Facts

Annual Energy Savings	866,921 kWh
Annual Savings	\$92,092
Gross Investment	\$294,063
Rebates	\$105,699
Rebates as % of Total Project Cost	36
Net Investment	\$188,365
Net Payback	2.05 years

ROI 49%

Challenge

Built in 2004, this 150,000 ft² office building in the mid-Atlantic United States had operating and client comfort issues arising from inefficiencies in the HVAC, building envelope, and lighting systems.

- A large atrium in the lobby and core of the building had significant solar heat gain during the summer, and the annex with 25-foot ceilings had a high level of temperature stratification during the winter
- HVAC system ran beyond standard operating requirements
- Light levels in tenant space were on average 36% above the IESNA and lease requirements
- This secure facility required that our personnel be escorted, thus limiting installations to set operating hours.

Our Solution

Implemented energy efficiency retrofit measures, addressing multiple building systems, including HVAC, lighting, building envelope, advanced controls, and operations:

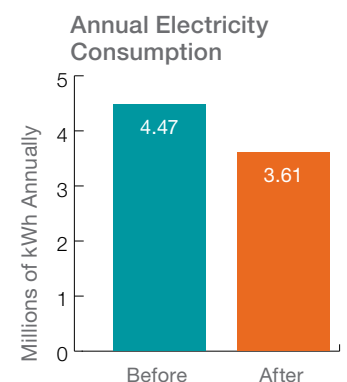
- Installed high-output and high-efficiency lighting fixtures and controls
- Introduced destratification fans in the annex, triggered by outside air temperature
- Applied low-e solar film to lobby and atrium, reducing solar heat gain and UV ray damage
- Implemented data visualization system, displaying real-time energy consumption.

Optimized HVAC operations by adding a building management system (BMS) overlay, controlling system components by taking into consideration:

- Time of day usage charges
- Peak demand
- Historical building operations and consumption
- Future weather conditions.

Energy Savings – 19%

- Whole building energy cost and consumption reduced by 20%
- Energy usage reduced by over 860,000 kWh per year
- Annual energy savings exceed \$90,000.



How can we help you? Please contact Green Generation Solutions at info@greengenerationsolutions.com or 301.202.2930