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NYSERDA

Vornado Realty 350 Park Avenue

Case Study

FlexTech Consultant:
Goldman Copeland

Client Name:
Vornado Realty Trust

Building Square Footage
571,000 sq. ft.

Sector:
Commercial Office

Location:
New York, NY

Annual Cost Savings :
\$580,000

Annual Energy Savings:
18,154,432 kBtu

“An energy study is a quick way to evaluate your building’s energy performance and identify opportunities for easily implemented improvements at low or no cost. Taking advantage of programs and having a FlexTech Consultant identify ways to save energy and money improves the quality of your space, creates a better environment for your tenants, and helps the environment and your portfolio”

—Vornado Realty Trust

The Bottom Line

Vornado Realty invested \$126,449 in services provided by Goldman Copeland to discover opportunities that could save them nearly \$600,000 on their utility expenses annually. By implementing the energy efficiency measures recommended by Goldman Copeland, Vornado can:

- **Significantly reduce the annual energy use and utility expenses for this facility**
- **Improve air quality, occupant comfort, and productivity of building occupants**
- **Improve life expectancy of building equipment**
- **Completely pay back money invested in energy efficiency upgrades in less than 5 years**

Background

Vornado Realty is a sustainability leader, driving higher standards both inside and outside the real estate industry. As part of an ongoing effort to improve building equipment throughout their building portfolio, Vornado worked with Goldman Copeland through NYSERDA’s FlexTech Program to discover ways to reduce operating costs and optimize building systems for their 350 Park Avenue office.

As a FlexTech Consultant, Goldman Copeland handles the entire NYSERDA application process, requiring minimum effort by their clients. FlexTech Consultants can help customers set energy performance goals, identify savings opportunities, and then prioritize those opportunities to achieve the greatest benefit and meet specific goals.

**GOLDMAN
COPELAND**
CONSULTING ENGINEERS

NYSERDA-Approved FlexTech Consultant

Energy Savings Summary

Measure Description	Electric Savings (kWh)	Steam Savings (Mlbs)	Annual Cost Savings
HVAC Controls	151,453	8,416	\$228,625
Chiller Upgrade	-	19,000	\$313,744
Lighting Upgrade	165,822	-	\$37,631
Total	317,275	27,416	\$580,000



Goldman Copeland has completed energy studies for over 30 million square feet of property to assist customers in making more informed energy decisions at their facilities.



NYSERDA-Approved FlexTech Consultant



Approach

Primary Objective

Evaluate the facility's mechanical and electrical systems and the building's envelope through an energy audit and retrocommissioning to identify measures to improve energy efficiency and reduce operating costs.

Assess Current Equipment and Energy Usage

Goldman Copeland completed site surveys of mechanical and electrical systems, interviewed operating staff, examined design documents, investigated how the building uses energy, and evaluated energy use and costs.

Identify Energy Conservation Measures

Technical and economic analyses were completed based on building system and energy data collected during the site surveys. The analyses help to determine the most feasible and cost-effective energy efficiency recommendations specific to Vornado's building.

Summarize Findings and Recommendations

Goldman Copeland provided a NYSERDA-approved report that summarized each energy conservation recommendation, the associated energy savings, implementation costs, and payback periods with each measure. The report allowed Vornado to understand which recommendations should be prioritized and provide the greatest savings and payback.

Recommendations

In addition to HVAC controls and lighting upgrades, Goldman Copeland arrived at an innovative solution to retrofit one of the building's existing chillers to an electric drive. The re-use of the existing chiller – instead of the installation of a new chiller – allowed the existing chilled water to remain in place. This strategy reduced overall project installation costs and resulted in substantial energy savings.

NYSERDA Flexible Technical Assistance Program

Completing an energy study of a building can help identify and evaluate opportunities to reduce energy costs and incorporate clean energy into a company's capital planning. Through the Flextech Program, NYSERDA shares the cost to produce an objective, site-specific, and targeted study on how best to implement clean energy and/or energy efficiency technologies. A NYSERDA-approved FlexTech Consultant will work with businesses to complete the energy study and provide expert, objective and customized technical services to inform clean energy management and investment decisions.

Discover how to reduce energy costs and incorporate clean energy with NYSERDA.

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