



Delivering advanced HVAC solutions with a quick ROI

160 GOULD STREET



Property managers Cushman & Wakefield faced a challenge with their office building at 160 Gould Street. The substantial multi-tenant property needed a new Energy Management System (EMS), but also needed the retrofit project to deliver a speedy ROI. To achieve their objectives, Cushman & Wakefield partnered with EnergySource and FMC Technologies (FMC) to leverage their expertise in advanced energy efficiency solutions.

DELIVERING A COMPREHENSIVE AND COST-EFFECTIVE SOLUTION

When property managers Cushman & Wakefield decided to upgrade their office building at 160 Gould Street in Needham, Massachusetts, they knew they needed partners with expertise in the multiple aspects of advanced energy solutions for commercial properties. The three-story, 139,000 square foot building was built in 1986 and its operational efficiency and overall tenant experience were not meeting expectations. Cushman & Wakefield selected EnergySource and FMC for their experience with cost-effective, energy-efficient building system retrofits. Together, they crafted a strategy to reduce electrical energy usage without compromising tenant comfort.

LEADING ENERGY-REDUCTION STRATEGIES

As leaders in building energy solutions, FMC shared its knowledge in advanced HVAC systems to strengthen the overall EMS implementation. To start, FMC evaluated 160 Gould Street for retrofit opportunities that aligned with Cushman & Wakefield's objectives, budget, and ROI guidelines. Based on their evaluation, FMC added 162 variable air volume (VAV) terminal boxes located throughout the building which interfaced with the rooftop units (RTUs). Each VAV terminal box was then placed be under direct digital control through the EMS. Further, the EMS provided remote and centralized HVAC system control with custom programming capabilities. With the addition of the EMS, 160 Gould Street optimized HVAC system operation with newly programmed advanced energy sequences including:

- Static pressure reset
- Night temperature setback for VAV terminal units
- Night cycling RTUs with gas heat during the winter
- Optimizing economizer operation to reduce cooling and heating loads

BUILDING GREATER VALUE

Through the collaborative EMS implementation, 160 Gould Street showed significant results immediately. The local utility company's assessment of the building's retrofit determined that the reduction in electrical energy usage will add up to over **\$33,000** in cost savings each year. For FMC's part, the advanced energy sequencing made possible by the EMS lead to reduced fan power energy use and electric heating and cooling loads. In addition, direct digital control over the RTUs and VAV terminal boxes enabled better control and monitoring of the temperatures in the various tenant spaces throughout the building. As a result, Cushman & Wakefield were able to achieve the ROI they needed, and improve the occupant comfort their tenants want and value.

ELECTRICITY AND COST SAVINGS OF:

291,639 kWh/year
\$33,253/year

About FMC

FMC Technologies provides advanced building systems that reduce building operating expenses, increase productivity, and provide a safe, comfortable working environment.

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