



Advanced energy-efficiency solution reduces commercial building's HVAC energy use by 33%

55 THOMSON PLACE



REDUCING COSTS WITH VISIBILITY AND CONTROL

Before implementing the EMS, there was no way to see when the 84 terminal boxes used the electric reheat coils, or to enact system-level limits on coil usage based on outside air conditions. It is likely the terminal boxes were using the coils day and night throughout the entire year.

"We had our FMC system installed in February of 2018. The system is user friendly with excellent graphics. Our goal was to maximize the system's potential to help us achieve energy savings and gain better control. The system achieved both and gave us a considerable reduction in energy."

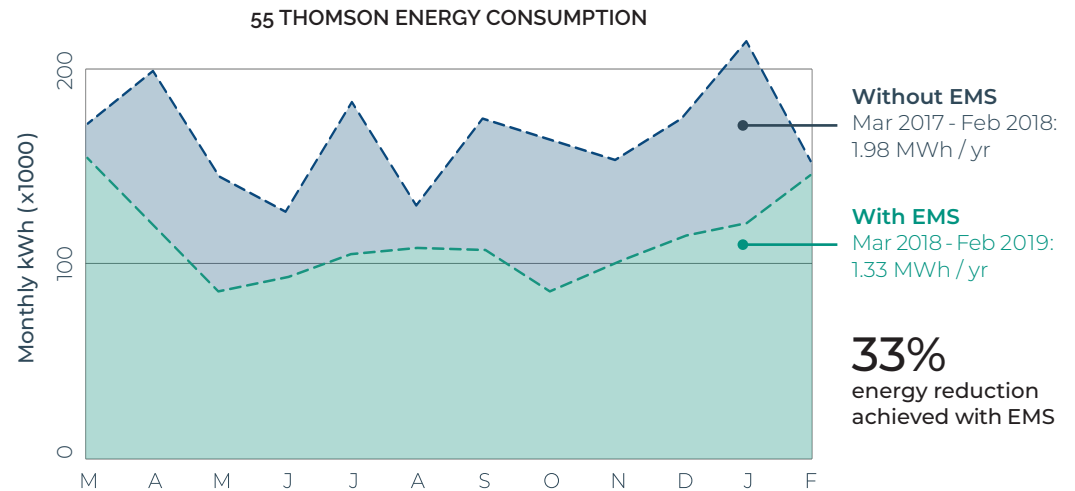
- Paul Lanza, (Title)

When property management company Hold Thyssen noticed that their building at 55 Thomson Place reported high energy usage, they contracted FMC Technologies (FMC) to provide a solution. FMC developed a custom energy management system (EMS) for the building that provided a 33% reduction in electricity usage in the first year alone.

CHALLENGE

With hundreds of commercial properties throughout the US, Hold Thyssen prioritizes energy efficiency and economical operating expenses in its buildings. The property at 55 Thomson Place, however, was not meeting those expectations. The all-electric HVAC system was likely the source of the building's unusually high electricity usage, so Hold Thyssen reached out to FMC for their expertise in HVAC building energy solutions.

The HVAC system consisted of three rooftop units and 84 fan-powered terminal boxes with electric reheat coils, all with separate control systems. Hold Thyssen wanted to understand why the system was underperforming, gain visibility into its operation, and simplify its management for the future. To meet their needs, FMC installed a new EMS that would provide precise environmental control and cost-efficient operation.



SOLUTION

For an HVAC control solution that would reduce electricity usage, FMC networked all 84 terminal boxes using BACnet controllers and integrated to the BACnet communications cards in the rooftop units. This custom EMS provided advanced energy sequencing that allowed for temperature setbacks when the building is unoccupied, optimized start/stop, and discharge air temperature resets on the rooftop units. By bringing all the HVAC equipment under direct digital control through an EMS, Hold Thyssen realized a 33% reduction in energy use year-over-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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