

Maximizing Efficiency with Real Time Energy Management

Case Study

Company Name:
SL Green

Square Footage:
1.4 Million Sq. Ft.

Energy Savings Results:
\$35,000 annually

Sector:
Commercial Real Estate

Location:
New York, NY

The Challenge

SL Green is the largest commercial office landlord in New York City and widely known for delivering a premium experience to tenants as well as outsized returns to investors.

The high-rise commercial assets that SL Green owns and operates spend millions of dollars per year on utilities, maintenance, and repairs. Reducing these operating costs by even small percentages can have a significant impact on the net operating income (NOI) of the property. In a market like New York City, which has the lowest cap rates in the country, any incremental increase in NOI has a significant impact on the asset value of the property.

SL Green is known for employing some of the most skilled engineers in the industry and many of the simpler optimization models have already been implemented. To continue to drive efficiencies, SL Green decided to implement the Enertiv Platform at 919 Third Avenue, a 47 story, 1.4 million square foot building in Midtown Manhattan that spends \$3.8 million on utilities annually.

The initial goal was to quantify overtime HVAC costs in order to add empirical evidence to the rates the company was charging tenants.

The Solution

Over the course of the first year, while the Enertiv Platform calculated real-time costs of running HVAC systems on overtime during weekday nights and weekend in every weather condition, the SL Green engineering team went about deploying a series of optimizations unlocked by the Enertiv data.

These optimizations included:

- **\$15,000+ in savings** from delaying the startup time of interior supply fans from 5 a.m. to 7 a.m.
- **\$17,000+ in savings** from installing VFD's on a condenser water pump and a chilled water pump

The engineering staff was able to measure and verify the impact of their work faster and more accurately than previously possible.





“Enertiv has shown an ability to continuously innovate to meet our needs. Their platform has made our work easier at multiple levels of the organization.”

— Richard Currenti, Senior Vice President and Director of Engineering at SL Green

In addition to the insights and optimizations driven by performance data, 919 Third Avenue became one of the first buildings to deploy the Enertiv 360 solution.

This allowed senior level management responsible for more than 40 properties to stay connected and informed by remotely “logging” into the platform for 919 Third Avenue to pull-up real-time optimization data.

The Result

After one year of tracking the cost of running HVAC systems during overtime hours, the SL Green team was pleased to discover that the data backed up their current operating cost structure.

Beyond that, SL Green and Enertiv identified another \$138,000 in potential savings at 919 Third Avenue. The next steps include expanding the scope to capture more equipment-level performance data, as well as identifying opportunities to deploy IoT sensors to track additional data streams such as temperature and humidity.

In addition to expanding the scope at 919 Third Avenue, the savings generated in an already high-performing asset has given SL Green management the confidence to expand the Enertiv Platform at other properties in the portfolio.

The NYSERDA Real Time Energy Management Program

Through the Real Time Energy Management Program, NYSERDA offers up to a 30% cost-share incentive to support RTEM projects that serve customers in multifamily, commercial, and industrial sectors. The program helps evaluate and qualify vendors, ensuring high-quality RTEM projects that create a smarter building or facility with lower operating and utility costs, and greater appeal, comfort, and marketability.

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