



Fortune 100 IT company

“Thanks to Optimum Energy, we’re seeing real cost and energy savings, and we’ve reduced performance drift.”

*–Plant Operations Manager
Fortune 100 IT company*



Opportunity

Fortune 100 IT innovator with a long-term commitment to sustainability set its sights on reducing energy use in a 50-year old research facility in New York State. With 50% of the building dedicated to research labs and data centers, the company required 24/7 cooling to support mission-critical reliability requirements. First the company retrofitted its 7,300 ton chilled water system for free cooling, which brought the annual operating performance to 0.78 kW/ton. The company wanted to further increase plant efficiency with a solution that would integrate with its existing BAS and hardware.

Solution

Pre-implementation assessments revealed that the OptiCx Platform by Optimum Energy could reduce the average annual kW/ton down to 0.67 kW/ton—an additional 17% savings. The OptiCx Platform lets facility operators easily track operating performance and report on energy, cost and carbon reductions. The solution prevents cooling towers from freezing in cold weather and system-level controls help the company operate the plant in free-cooling mode for longer periods of time.

Results

In the first year of operation, the company saved \$172,000 in operating expenses, 2.6M lbs CO₂ emissions and 1.7 million kWh (surpassing energy reduction estimates by nearly 4%). The company achieved simple payback in 1.9 years. Even during the coldest days, the solution minimizes cooling tower freezing, while stable HVAC system operations meet stringent data center reliability requirements. As a result of significant savings and reliable performance, the company is installing the OptiCx Platform in two additional U.S. facilities and is evaluating implementation across its large building portfolio.

ABOUT OPTIMUM ENERGY

Optimum Energy provides a proven solution that delivers significant and sustained efficiency gains of up to 50% in HVAC systems. The OptiCx Platform combines technologically advanced HVAC optimization software with world-class expertise in system design and operations. It's a proven, systematic, and scalable approach that reduces resource usage—water, electricity, and people—while providing detailed insights into how building systems operate in real time. The result is vastly improved operating efficiency, which further increases savings, and importantly reduces overall carbon emissions. For more information please visit optimumenergyco.com.