Commercial and Industrial Energy Efficiency Program

Mount Sinai Success Story

Mount Sinai

Building Type: Commercial

Industry: Medical Center

Location: New York, NY

Project Type: Chiller Plant Optimization

Energy-Efficient Upgrades Installed:

- Chiller Optimization
- Electronically Commutated Motors
- Variable Frequency Drives
- Ventilation Optimization

Participating Contractor:

SIEMENS

Siemens Industry, Inc.
914-202-2073
Siemens.com

Savings Snapshot	
Total project cost:	**$5,900,000**
Con Edison incentive payment:	**$2,954,000**
% of project cost covered by Con Edison:	**50%**
Annual kWh savings:	**3,370,159 kWh**
Annual therms savings:	**449,447**
Payback period:	**<4 years**

Overview:

The Icahn School of Medicine is a 25-year-old, 583,408 sq ft. building used for academia and clinical research. It consists of nine floors of labs, six floors of administrative and clinical offices, and one floor of hospital space with 28 beds and supporting offices. Energy audits revealed opportunities to reduce the building's carbon footprint and energy costs by retro-commissioning and upgrading and/or replacing key HVAC infrastructure.

Through Con Edison's Commercial & Industrial Program, the school implemented a chiller plant optimization that included upgrading the chiller plant, air handling units, cooling and steam coils, and the steam plant. They also installed electronically commutated motors (ECMs) to maximize system efficiencies and increase the delivered cooling and heating tonnage to the building's air supply. In addition to upgrading the controls, variable frequency drives (VFDs) were installed on existing motor drives to provide more granular water flow control. A ventilation optimization system was installed that senses and monitors airborne particles and adjusts air flows accordingly to reduce energy use in the laboratory.

This optimization helped improve the plant's capacity and control, eliminated most of the simultaneous heating and cooling, and maintained operational stability to make the lab more comfortable. The chiller plant optimization project is expected to generate nearly $760,000 in savings per year.

"We would highly recommend the C&I program to all who need to upgrade and enhance their existing infrastructure. The application process is simple and can provide significant financial incentives for worthwhile projects."

—Felipe Garcia, Assistant Director of Energy Management

*Incentives may have changed since this project was completed. For current incentives and more information, visit **conEd.com/LargeCommercial**, or email **commercial@conEd.com**.