



Double-digit reduction in energy consumption at the Icahn School of Medicine

Case Study

Company Name:
Icahn School of Medicine

Industry:
Educational and Research

Location:
New York City, NY

Total Square Feet:
583,408

Annual Electric Savings:
4,838,872 kWh

Annual Fossil-Fuel Savings:
55,604 MMBtu

Annual Cost Savings:
\$880,825

Overview

The Icahn School of Medicine (ISOM) is a 26-year-old, 583,408 sq. ft. research and educational building. It was ranked 18th overall among research-based medical schools in the 2019 edition of the *U.S. News & World Report*. In 2018, ISOM consumed 31,563,167 kWh and 131,390 MMBtu. As one of the most well-known medical schools in the world and an active member of the NYC “Mayor’s Carbon Challenge,” ISOM was eager to take advantage of an opportunity to partner with the New York State Energy Research and Development Authority (NYSERDA) and participate in a cost-share energy study.

Developing a Plan and Establishing the Goal

ISOM and NYSERDA agreed on a 24-month commitment, which entailed an energy reduction goal of 3% in electrical consumption and 5% in natural gas consumption. This is equivalent to an overall reduction of 1,578,158 kWh and 11,825 MMBtu. To achieve this goal, ISOM hired a full-time On-Site Energy Manager (OsEM), who would ensure that energy conservation measures would be assessed and applied towards the goal. This commitment took place from January 2019 through December 2020.

Results

Energy Efficiency

In collaboration with local utility companies, engineering firms, and house staff, the energy manager reduced ISOM’s electrical and natural gas consumption by 15% and 42%, respectively. This equated to an annual electrical and natural gas savings of 4,838,872 kWh and 55,604 MMBtu.



Integrating Energy Management

The OsEM implemented several energy-management tools that contributed to overall success. First, the development of an Energy Management Plan was crucial in assisting the OsEM in all of the identified Energy Conservation Measures. An Energy Committee was created to keep all parties involved and up-to-date with the building's energy consumption and usage. Finally, updating the building's automation system and establishing well-defined setpoints proved to be the most significant savings.

Looking Ahead

ISOM will continue its commitment to energy conservation and sustainability. The Energy Management Plan developed by the OsEM will help track ISOM's progress. It will also assist with NYC Climate Mobilization Act compliance and with the NYC Carbon Challenge goals of 30% greenhouse gas emissions reduction. With the Dean Office's collaboration, new developments would engage and educate new students and promote green sustainability awareness. Finally, the continuation of the energy committee will help in identifying and implementing new energy conservation measures.

The NYSERDA On-site Energy Manager Program

Through the On-site Energy Manager (OsEM) Pilot Program, NYSERDA cost-shares up to 75% of the cost to hire an OsEM. OsEMs work with companies to develop and implement successful energy and productivity projects. Projects may include operation and maintenance improvements, behavioral changes, energy efficiency upgrades, process improvements, throughput and scrap reduction improvements, and cost management.

Discover how to bring energy costs under control and maximize profitability with NYSERDA.

Visit nyserdera.ny.gov/OsEM