

LURIE RESEARCH CENTER

Impact at a Glance

- **20% energy reduction** from baseline achieved in 2016
- Annual energy savings of **\$550,000**
- **54.8% reduction of carbon emissions** in 2022 compared to 2012 (data via ENERGY STAR Portfolio Manager)

Building Stats

- **Year Built:** 2005
- **Neighborhood:** Streeterville
- **Architect:** Davis Brody Bond
- **Use:** Research and Education
- **Square Footage:** 407,921

The Robert H. Lurie Medical Research Center on

Northwestern's downtown campus was constructed in 2005 to house the Lurie Cancer Center, one of the nation's select National Cancer Institute (NCI) Designated Comprehensive Cancer Centers. With a variety of specialty spaces including 199 research and teaching laboratories, two auditoriums, 2 seminar rooms, and a vivarium, energy conservation measures (ECMs) required collaboration with the research and safety departments to ensure ECMs did not adversely affect any of the experiments or occupants.

The Lurie Medical Research Center joined Retrofit Chicago in 2014 alongside ten other higher education facilities as part of the Alliance to Retrofit Chicago Higher Education. This group of Chicago's respected colleges and universities participated in discussions with the mayor's office, shared information with peer institutions, and committed to reach a goal of 20% energy reduction at each site within five years.

Spotlight on Energy Efficiency Investments



- Demand-controlled ventilation system
- Lighting upgrades
- Equipment commissioning



Elsewhere on campus, Northwestern worked with ComEd to install energy-efficient equipment in data centers to save around 824 kWh annually.

In 2014, Northwestern joined the Alliance to Retrofit Chicago Higher Education (ARCH) with a commitment to reduce energy use by at least 20% in five years. The following year, the Northwestern Energy Retrofit Initiative launched, committing almost \$32 million to energy conservation projects. One of the key tools was an analysis from Siemens and Noresco that identified and prioritized energy projects across campus.

The biggest challenge within The Robert H. Lurie Medical Research Center was moving from a constant air volume system to one based on demand. With a variety of different laboratories, teaching spaces, meeting venues, and a vivarium capable of holding approximately 30,000 cages, the requirements for ventilation required a diverse set of ventilation needs and windows of use. Members from engineering, research management, and safety met to ensure energy conservation measures would maintain the rigorous needs of all facilities.

Northwestern was recognized by city leadership following their accomplishment of the 20% energy reduction. Even after the conclusion of the formal retrofit initiative, university leadership continued funding the energy conservation projects.

About Retrofit Chicago

The Retrofit Chicago Energy Challenge encourages, promotes, and celebrates voluntary energy efficiency leadership. Together, participating building owners, facility managers, engineers, and policymakers are demonstrating that energy efficiency is a winning proposition for Chicago's real estate industry as well as the environment.



The Key to Success for Northwestern University

“ Northwestern University is always looking for new energy efficiency projects as new technologies and **operational best practices** evolve over time since we design our buildings with 100 year (or more) life spans.”

Jay Baehr
Senior Project Manager,
Northwestern University



Built in the mid-2000s with a double skin facade and modern fixtures, envelope and lighting retrofits to the Lurie Medical Research Center provided only a marginal gain.