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Customer Spotlight:



Syracuse University
Syracuse, NY

Project Overview

Syracuse University set out to reduce energy use and emissions in one of its most energy-intensive buildings—a life sciences lab that operates year-round. The building supports both teaching and research labs and runs 24/7, requiring large amounts of outside air to maintain safety and indoor air quality.

Through careful planning and support from National Grid's C&I Electrification Incentive Program, the university identified a way to improve the building's performance without replacing existing systems. By adding heat recovery technology to the current setup, the team created a more efficient solution that supports long-term sustainability goals while keeping the building fully operational.

The Challenge

Laboratory buildings are among the most energy-intensive spaces on campus. This facility requires a constant flow of outside air, which must be heated after entering the building to maintain occupant comfort and building operations. This creates a large and ongoing heating demand, which was met via the university's campus steam loop, powered by an aging natural gas steam plant. This single facility was a large contributor to campus-wide energy use and emissions.

Although the building was newer and its systems were still working well, the university saw an opportunity to reduce energy use and emissions. A key challenge was finding a solution that could work with the existing system, handle the building's high energy needs, and remain easy for maintenance staff to operate.

The Solution

After evaluating options, the team chose to enhance the building's existing energy recovery system. They installed heat recovery chillers and added a run-around heat recovery loop to capture and reuse more heat from exhaust air, reducing the need for steam heating.



Heat recovery chillers



Heat recovery supply and return piping

continued >



The project was designed to work with the building's current infrastructure, using proven technology in a new way. As one team member noted, the system is based on familiar equipment, making it easier for maintenance staff to operate and maintain.

The university worked with engineering partners and contractors to bring the project to life. Improvements also included electrical upgrades to support the new system. With support from National Grid, the team was able to expand the project and complete a second phase sooner than planned.

The Impact

The project is already showing promising results and is expected to deliver long-term benefits:

- Reduced steam use and overall energy consumption
- Lower greenhouse gas emissions from building operations
- Reliable performance in a 24/7 lab environment
- A solution that is easy for in-house teams to operate and maintain

The system has been designed with real-world use in mind. By focusing on usability, the university has set the project up for lasting impact.

The Result

National Grid Incentive:

$976,000

Annual Reduction of Emissions:

795

Metric tons

Annual Energy Savings:

13,944

MMBtu

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