RED-Rochester efficiently manages energy use across Eastman Business Park

Case Study

Tenant Name:
Recycled Energy Development, LLC

Business Type:
Energy Supplier

Location:
Rochester, NY

"CHA Consulting was able to audit and baseline the condition and efficiency of many of our key assets and processes. This effort resulted in the identification of over 100 energy efficiency projects and provided RED with the analysis necessary to obtain funding to support priority projects."

— Craig E. Bennett, President of RED-Rochester

Overview

Recycled Energy Development, LLC (RED-Rochester), is a multi-utility generation plant and district energy supplier to Eastman Business Park's 1,200-acre campus in Rochester, NY that houses more than 60 industrial and commercial tenants. Including the main power plant and lake water treatment facility, RED-Rochester owns and operates 28 buildings totaling 688,773 square feet with approximately 110 employees.

In an overall effort to maintain and improve operational and energy efficiency, RED-Rochester partnered with CHA Consulting, Inc., an engineering and construction management firm, for a full-time, on-site energy manager through the New York State Energy Research and Development Authority's (NYSERDA) On-Site Energy Manager Pilot Program. A senior energy engineer was appointed to provide technical assistance, training, identify opportunities, implement energy management strategies and projects, and verify results. The program ran over a 15-month period from April 2017 through July 2018.

Taking Action

The energy manager assembled a team that represented the refrigeration and water group, management, an operations specialist, and process controls technicians to target facility-wide improvements. Biweekly meetings were held to focus on driving these improvements to reduce electricity and natural gas consumption through efficiency.

The site energy goal was to achieve a 3.5% reduction in energy consumption. More than 100 energy conservation projects were identified with several implemented or awaiting implementation to date—the remainder are under consideration with RED-Rochester's management. The wide variety of projects include system upgrades and repairs, high-efficiency new equipment installations, and general utility repairs.

Progress Towards Reduction Goals *(Through July 2018)*

Energy Source	Installed		Approved & Pending		In Development	
	Quantity	% of Goal	Quantity	% of Goal	Quantity	% of Goal
Natural Gas — MMBtu HHV	13,680	5%	481,615	159%	837,500	276%
Electric — MWh	3,275	284%	37	3%	23,440	2,034%
Combined — MMBtu HHV	**24,860**	**8%**	**481,740**	**157%**	**917,500**	**298%**

The site energy goal was to achieve a 3.5% reduction in energy consumption. More than 100 energy conservation projects were identified with several implemented or awaiting implementation—to date, the results exceed initial project goals.

Making Progress

Overall progress toward the energy reduction goals was tracked by grouping projects into three main categories: projects installed or implemented to date, projects approved and pending implementation, and projects in development.

Employee training sessions for utilizing ultrasonic equipment in maintenance efforts were organized and executed. Ten maintenance personnel and operators were trained on the use of this equipment to assist them with various tasks such as compressed gas leak detection, steam trap inspections, bearing inspections, valve leak-by checks, and electric panel inspections.

Moving Forward

RED-Rochester has an on-going best practice of sharing resources and knowledge across the facility to collaborate and implement similar energy conservation measures throughout the company. The on-site energy manager participated in sharing and identifying best practices with the various utility groups across Eastman Business Park. Additionally, peer-to-peer sharing was accomplished by creating a cross-functional energy management team, as well as focused operations and maintenance teams to ensure best practices are continuously in effect.

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.

NEW YORK STATE OF OPPORTUNITY. | NYSERDA

Discover how to reduce costs and energy use in your industrial and commercial spaces with NYSERDA.

Visit nyserda.ny.gov/OSEM