

Schaefer Greenhouses Inc.

Pulls Back the Curtains on Energy Savings



Energy
Efficiency
Program



Rebates/incentives:
\$44,026



Estimated annual energy savings:
26,316 therms

The Challenge

Schaefer Greenhouses relies on a boiler system to heat its expansive greenhouse facilities, in tandem with a sun-regulating heat curtain system that helps control temperatures, humidity and sun exposure for their myriad of plant and flower products. After many years in operation, Schaefer found they were incurring higher energy costs with inefficient boilers and a heat curtain system in disrepair. Even worse, the plant life relying on a properly functioning heat curtain was put in jeopardy. That's when the Nicor Gas Energy Efficiency Program stepped in to help.

The Solution

Through its prescriptive incentives offering, the Nicor Gas Energy Efficiency Program provided boiler tune-ups to optimize operations. The program also helped Schaefer Greenhouses replace numerous steam traps which can be huge energy wasters when not functioning properly. Pipe insulation was fitted for greater energy savings and new heat curtains were installed to protect their vegetation while reducing energy costs. Additionally, a retrocommissioning study was conducted to uncover no and low-cost opportunities for operational improvements throughout Schaefer's facility.

The Story

Proudly serving the area surrounding Montgomery and Aurora, Illinois since 1926, family-owned Schaefer Greenhouses is an agricultural business now being led by the fourth generation of Schaefers. With more than 200,000 square feet of greenhouse space at its Montgomery location, mostly covered in quarter-inch glass windows, using energy efficiently is not an easy task.



The Nicor Gas Energy Efficiency Program team partnered with Mike Schaefer and his team to optimize their systems and uncover savings opportunities.

"I can't see why others in the industry wouldn't take advantage of the program's energy efficiency incentives. It would be foolish not to participate."

Mike Schaefer, Owner, Schaefer Greenhouses

Making It Happen

Schaefer Greenhouses has been participating in the Nicor Gas Energy Efficiency Program since 2014. Owner Mike Schaefer recalled their initial projects. "We initially did the boiler tune-ups. Having them running properly was a big consideration in our participation. We also worked with the program to install all the pipe insulation and some steam traps," said Schaefer.

A key factor in Schaefer's continued participation was being able to replace the heat curtains that are critical to the facility's environmental management. Rick Molica, Schaefer Greenhouses' assistant retail manager, talked about the curtains' importance. "The heat curtains, regardless of boiler efficiency, have an enormous impact on our energy efficiency," said Molica. He continued, "In the winter, they allow sunlight in to offset heating and plant-growing needs, and in the summer, they help drop the temperature in our greenhouses by as much as 30 degrees. At night, in the winter, the curtains are also used to retain heat to protect the plant life."



Brett Schaefer, garden department manager appreciates that Schaefer's optimized boiler system and temperature-balancing heat curtains ensure that their customers can shop in comfort while allowing plant life to thrive regardless of weather conditions.

Keeping energy costs down during the winter months can be especially challenging for a facility covered in glass windows. Schaefer explained, "We took all sorts of measures to try and conserve gas, such as opening up greenhouses or keeping them closed to curtail energy costs during the winter."

To assist in finding additional energy savings, the retrocommissioning study conducted by the Nicor Gas Energy Efficiency Program's engineers helped identify no and low-cost opportunities resulting in more significant energy savings opportunities.

The Experience

Schaefer Greenhouses has been able to optimize their building management operations on an ongoing basis since 2014, while realizing significant energy savings and taking advantage of incentives that can be reinvested into their thriving greenhouse business. It has created a loyal program participant out of Molica, who appreciates Nicor Gas' commitment to Schaefer's energy efficiency journey.

"We have a long history with Nicor Gas, which has kept a thorough record of data regarding our energy usage before and after projects are implemented," said Molica. "These projects have helped us grow a better product through the continual process of resolving energy inefficiencies."

Knowing that the Schaefer family will continue to provide top-quality floral and plant products to its surrounding communities for years to come has led the company patriarch to provide advice to others in the industry. "Whenever I see a fellow grower, I tell them about the benefits of the Nicor Gas Energy Efficiency Program, and some don't believe me," said Schaefer. "Regardless of their reaction, I know how we've benefitted, so my simple response to them is 'do it.'"

Schaefer Greenhouses Inc.
Montgomery, Illinois

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