





Rebates/incentives: \$17,700



Estimated annual energy savings: 9,198 therms

The Challenge

Donovan Junior/Senior High School maintenance staff had become disillusioned with an unreliable boiler system that left classrooms either too hot or too cold. Through its Building Optimization Program (BOP), the Nicor Gas Energy Efficiency Program team was able to identify and resolve the school's issues, ensuring that students would have a comfortable learning environment.

The Solution

The focus was to optimize the operation of the boiler system, which required a significant number of steam trap replacements. After a facility assessment was performed, further efficiencies were realized through the installation of weatherstripping and a kitchen spray valve, along with high-efficiency showerheads and faucet aerators.

The Story

Serving the small east-central Illinois towns of Donovan, Beaverville, Martinton and Iroquois, Donovan Junior/Senior High School has an enrollment of 130 students and is part of a school district with just over 1,000 residents.

Former Donovan student Justin Lareau has been the head of maintenance for over two decades. "My role here is an everything role," he said. "I do landscaping, mowing, and maintenance for both buildings. With a district our size, we wear many different hats but I would not change it for the world."

In a rural area where school choice is limited, residents expect their schools to provide an exceptional learning environment, but that wasn't the case at Donovan. A boiler system with steam traps in disrepair made it impossible to regulate the classroom temperatures. Lareau reached out to the Nicor Gas Energy Efficiency Program to help him resolve resolve the school's inefficiency issues.



Steam trap replacements and boiler optimization were the keys to savings success for Donovan Junior/Senior High School.

Making It Happen

Donovan was able to participate in the BOP offering, a closed network for small organizations to receive the support and funding for essential efficiency improvements. After assessing how the school was using energy, it was recommended that the school replace 100 steam traps to reduce overall heat loss and conserve energy.

"That boiler never shuts itself off which means it's always calling for heat somewhere," Lareau said. "I'm hoping by replacing the steam traps that the boiler shuts itself off when the radiators get to temperature. I'm also hoping that the fluctuation of the temperatures, where some rooms might be 60 degrees and the room above it is 93 degrees, is no longer an issue."

The facility assessment further uncovered areas of water-usage inefficiencies in the school's kitchen, showers, and restrooms that were resolved with free water-saving devices.

"I think it's been great. If you can collaborate on a project or issue, you're going to save money in the long run." Justin Lareau, Head of Maintenance Donovan Junior/Senior High School

The Experience

Through the hands-on assistance of the Nicor Gas Energy Efficiency Program team, Lareau was able to plan energy efficiency projects and receive support to complete them. He was grateful for the assistance. "When you deal with a big boiler system in a high school like this, not just any plumber will come in here and say, 'sure I want to touch that pipe.' Nicor Gas helped complete improvements that a lot of people typically would not want to touch."

Lareau has advice for others interested working with the Nicor Gas Energy Efficiency Program. "Don't be afraid to try it because you never know what your outcome is going to be," Lareau said. "You learn a lot in my position from experts willing to help. That has been the best. I've learned my whole job by people coming in and teaching me the systems. It gives you hidden knowledge which takes you further. Any help I can get is appreciated. Finding out that half the stuff was done for free... that's above and beyond."

Donovan Junior/Senior High School Donovan, Illinois

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