



Rebates, smart efficiency measures and forward thinking bring new life to aging school



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Glen Birnstengel
Facilities Manager

Background: going old school

An historic school building can be an iconic fixture in a community, often providing a landmark with an endearing presence and subtle prestige. Yet with each year comes energy efficiency challenges. The historic South St. Paul High School building has been operating over 60 years, but keeping it warm during the school year, while balancing limited funding, is an ongoing task.

Investing in today's high-efficiency heating technology is an attractive solution. Yet, realistically, for many schools, equipment upgrades are tough to fit into a limited, annual budget.

At issue: a strategy of getting by

South St. Paul facilities manager, Glen Birnstengel keeps the heating systems running reliably. "It's not an easy task to keep efficiencies in mind when the main steam boiler is as old as the building," said Birnstengel. "Upgrading our older heating units to high-efficiency water heaters is on our long-term equipment replacement plan, but until then, I'm using creative efficiency maintenance tactics to make the existing equipment operate as effectively as possible."

The plan: roll efficiency savings forward towards major upgrades

To offset the effects of an old steam boiler and other aged equipment, Birnstengel consulted Xcel Energy for energy savings ideas. Together they came up with an annual efficiency game plan based on the school's budget and savings that went toward upgrades at a later date.

With measures applied last year, South St. Paul received \$1,988 in boiler maintenance incentives. Best of all, South St. Paul High realized a savings of around \$16,000 that Birnstengel reinvested in the school's equipment plan.

Energy Snapshot

Number of buildings	4
Number of boilers	4
Number of steam traps	56
Therms savings	24,288
Rebate savings	\$1,988
Estimated energy cost savings	\$16,000

In energy terms, these measures helped them save 24,288 therms, which is equivalent to heating 120 homes during the same period.

The results: creatively working the budget for long-term gains

"By teaming up with Xcel Energy for the long term, Birnstengel has stretched his fiscal budget and minimized equipment downtime, which is among the school's most critical energy goals," said Albert Joe, Xcel Energy account manager. "Between seminars, workshops and our recommendations, Birnstengel has taken advantage of the free services we provide, and that has paid off."

To maintain the older equipment, Birnstengel reached the maximum return of energy savings by focusing on rebated boiler tune-ups and steam trap replacements.

Xcel Energy provides a \$30 rebate for every qualifying steam trap repair or replacement. Birnstengel credits tune-ups for the lack of system breakdowns and receives around 25% of the cost of each boiler tune-up.

How do students, teachers and staff benefit?

The rebate savings accumulated from these energy efforts have contributed toward two new hot-water boilers installed over the past 10 years.

"If you polled the students and staff, would they know that we improved comfort or saved money for the school with the measures we have taken?" asks Birnstengel. "The answer is no. However, since we have been tuning up our boilers every other year, and repairing bad or leaky steam traps, we have been seeing much more reliable performance out of all our equipment. So when we go years without a breakdown or complaints, we know we're doing the right thing."



Take action today

For South St. Paul High School, it's evident that regular maintenance and efficiencies go hand-in-hand. To learn how you can maximize your budget and reach your facility management goals with expert advice, schedule a meeting today with your Xcel Energy account manager.

Call 855.839.8862 or visit [xcelenergy.com/HeatingEfficiency](https://www.xcelenergy.com/HeatingEfficiency) for more information.