Partners in Energy: City of Red Wing
Saves Energy, Money and the Environment

“From crisis to clarity
It’s only fitting that a great energy program started with an energy crisis.

The maintenance staff at the City of Red Wing started working on energy efficiency projects back in the 1980s, when an energy crisis gripped the country. Fuel prices came down so the Deputy Director of Public Works approached the city council about putting money saved on fuel costs toward retrofits and upgrades. He knew Xcel Energy offered rebates to help offset the cost of the new equipment.

“I was given permission and we used it as a revolving fund,” explains Jay McCleary, now retired from the position. “We’d do one project and it would pay back in seven months, so we’d turn around and do another.”

Three decades and countless projects later, McCleary has helped the city of Red Wing collect nearly $100,000 in Xcel Energy rebates and begin a trend toward efficiency and sustainability that has grown over time. Those accomplishments laid the groundwork for a new venture that the surrounding community is engaging in called Partners in Energy. This broader venture encourages both businesses and residents to get involved.

A long list of savings
Looking back at decades of efficiency work, it’s hard to know exactly where it started, but Xcel Energy account manager Lance Duellman says there isn’t much they haven’t retrofitted.

“They’ve recommissioned several buildings and have replaced heating, cooling equipment and lighting in all of them,” says Duellman. “In fact, they’ve upgraded their lighting several times, installed LEDs on a parking ramp and even changed the streetlights to LEDs three years ago. They have been very proactive for a long time.”

McCleary credits Xcel Energy with helping them determine a priority list for their twelve buildings. Projects with quick paybacks were tackled first. The money saved on one project went to the next.

The steady cycle continues to save them money.

“We really never received much resistance from the city council when we showed them the costs, rebates and payback,” says McCleary. “They were always very supportive and gave us the green light.”

In addition to efficiency efforts, McCleary says they were trend setters in the solar realm. They added solar panels to half of their buildings in 2013–2014 and have plans to add panels to the others. The city of Red Wing was one of the first Solar Rewards customers in the state of Minnesota. In 2014, the panels produced 3 percent of the city-owned buildings’ energy and saved the city roughly $19,500 in electrical costs.

McCleary and his team pushed even farther with their sustainability efforts with a waste oil furnace in the maintenance shop. The used oil from the fleet vehicles is saved throughout the year and used to heat the building during the winter months. Powered by electricity from the solar installations, this building is net zero.
The oil goes through an oil filter, similar to a car oil filter and the furnace does the rest,” says McCleary. “It burns very clean with virtually no smoke.”

McCleary says since they started benchmarking energy use in 2011—all while making efficiency improvements—they have reduced their carbon footprint for the 12 major buildings by a whopping 55 percent.

“It’s exciting,” says McCleary. “I never envisioned that it would be that big of a drop. I knew we would save money and reduce our carbon footprint, but the numbers that came back after we installed those solar panels were awesome.”

**Community support**

McCleary says having the community behind the effort has helped tremendously. It’s why they recently teamed up with Xcel Energy’s Partners in Energy, which provides community support over two years to help communities develop their own energy action plans. These plans leverage a community’s unique resources to engage and inform community members to drive them to action and help them achieve their goals.

“The partnership is designed to help communities form a team, make a plan that reflects their priorities and implement change. We also track and report progress, which is often a great motivator to continue efforts and encourage even more people to get involved,” says Tami Gunderzik. “Partners in Energy is community driven, but once a community identifies what they want to achieve we work together to leverage Xcel Energy’s programs and services to help them reach their goals.”

“People understand the savings associated with these investments and that we’re doing the right thing for the environment,” says McCleary. “We’ve never had a problem convincing them that these are good ways to spend money—even when we’re looking to install a furnace in a library and competing with capital dollars to buy fire trucks or squad cars. Those are tough choices so we build them into our five-year capital improvement plan.”

McCleary says they’re now working on a community solar garden, which residents can’t wait to get up and running.

**Getting awards and giving advice**

Many of the city’s buildings are on the National Register of Historic Places, making retrofits even harder due to extra regulations. It’s not easy to find the right, energy-efficient windows for a 100-year-old building. Despite the challenges, they’re doing enough right to be earning recognition.

“In 2013, we were given an Innovation award by the Minnesota chapter of the National Institute of Governmental Purchasing,” explains McCleary. “As a national finalist, we were invited to Philadelphia to present what we had accomplished. We knew then that part of our goal was to educate others about how we did it, so they could learn from us and implement their own plans.”

They are now spreading the word however they can. Education is an important element to help others make decisions and save money at their own facilities and homes. Xcel Energy’s Partners in Energy helped put a solid implementation plan in place to deliver the message.

“We are now thinking about new ways to educate residents about the opportunities out there like rebates or other incentives,” says McCleary. “We’re considering things like literature distributed by the welcome wagon or real estate agents—anything to help others achieve what we have.”

And Xcel Energy continues to provide support one community at a time.

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**PROJECT ACHIEVEMENTS**

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<th>Dates</th>
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<tr>
<td><strong>Projects</strong></td>
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<td>Peak energy controls, lighting upgrades, motor upgrades, variable frequency drives for treatment plants, replacement of HVAC Equipment, solar panels</td>
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<td><strong>Locations</strong></td>
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<tr>
<td></td>
<td>1. Community Development Building</td>
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<td>2. City Hall</td>
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<td>3. Fire Station</td>
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<td>6. Public Works Maintenance Shop</td>
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<tr>
<td><strong>Xcel Energy rebates</strong></td>
<td>$98,404</td>
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<td><strong>Solar energy produced annually</strong></td>
<td>240 MWh (3% of the City of Red Wing’s energy) and $19,500 in annual energy savings</td>
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