

Multifamily efficiency programs benefit building owners, tenants

There are great incentives for multifamily building owners—and their tenants—to make energy efficiency improvements. Just ask Grant Hartley, building manager and co-owner of Diamond Pointe Apartments in South Minneapolis.

Hartley learned of the Multifamily Building Efficiency Program, a joint Conservation Improvement Program of Xcel Energy and CenterPoint Energy, in a flyer inserted with his monthly utility bill. He learned more and signed up for the program that ultimately implemented multiple efficiency measures in his 63-unit complex

“The first thing they did was come in and change every light bulb to LEDs,” said Hartley. “The program installed free high-efficiency bulbs for all units; now what’s not to like about that?”

The multifamily building program is one of many ways utilities help customers save energy. Utilities administer their Conservation Improvement Programs (CIPs), and the Minnesota Department of Commerce oversees the CIPs to ensure that utilities achieve state-mandated energy conservation goals.

The program Hartley signed up for provided a whole-building energy audit to determine the best approach to energy savings. It offered three levels of incentives based on the savings achieved: the building would need to achieve a minimum of 15% energy savings to earn a 25% incentive, 20% savings to receive a 35% incentive, and 25% savings for a 40% incentive.

Because his building achieved combined electric and gas energy savings of 26.6%, Hartley received the maximum incentive (more than \$25,000) that offset the total cost of efficiency improvements by 40%. The energy-saving measures included:

- Installed new energy efficient boiler and water heater.
- Installed water pipe insulation.
- Weatherized two louvered window openings in front hall landings.
- Installed covers on 45 through-the-wall air conditioners to reduce infiltration and provide additional insulation.
- Provided free energy-saving installations, including screw-in LED lights in all units and common areas, energy efficient showerheads, and energy efficient kitchen and bath faucet aerators.

The biggest measure was replacing the building’s original 1966 boiler. “It was a no-brainer,” said Hartley. “The boiler was old, inefficient, and was costing a lot of money to repair, so I had to buy one anyway. Installing a \$90,000 boiler without the program would have gotten me a normal rebate of about \$7,000. But



The Diamond Pointe Apartments in South Minneapolis have achieved energy savings of nearly 27% thanks to the Multifamily Building Efficiency Program of Xcel Energy and CenterPoint Energy.

through the multifamily efficiency program, I got a much bigger rebate (more than \$20,000).”

Hartley, who owns the building with his brother Bret, said he was knowledgeable about energy efficiency before applying for the program. “If you own a business or home with essentials like electricity, heating, and water, it makes sense to run it as efficiently as possible,” he said. “The multifamily program not only saves energy, it will save us money over the long-term.”

Great energy-saving potential

Multifamily buildings like apartments and condominiums have great energy-saving potential, according to Xcel Energy’s Yvonne Pfeifer, who co-manages the Multifamily Building Efficiency Program with Emma Ingebretsen of CenterPoint Energy. “Our program is focused on the entire multifamily building—resident spaces and common areas—and removing barriers that once kept building owners from participating in Conservation Improvement Programs.”

Traditionally, the multifamily building sector has been a tough segment to achieve and track energy savings. However, studies such as one that looked at energy efficiency potential in Minnesota’s multifamily sector (see accompanying article) and efforts to educate multifamily building owners/managers have generated increased interest in this once largely untapped area. Barriers to investing in multifamily building efficiency—lack of awareness, split incentives between owners and tenants, and limited capital—are being addressed.

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—Grant Hartley, Co-owner and manager of Diamond Pointe Apartments

Multifamily programs achieve promising results

The Xcel Energy and CenterPoint Energy multifamily program started in October 2015 and works closely with the Minnesota Multifamily Housing Agency to market the program and educate building owners and managers. In its first year (2016), 70 buildings (3,930 dwelling units) participated, including 16 that qualified as low-income. Increased participation is expected over the next couple of years.

Minnesota Energy Resources is another Minnesota utility that offers a multifamily program. Its Multifamily Energy Savings Program is in its sixth year and provides direct installation of free high-efficiency showerheads and faucet aerators, along with assessment of centralized heating systems, building operations measures (such as boiler control settings), diagnosis of central ventilation systems, and recommendations. Over five years, the Minnesota Energy Resource's program has served more than 6,000 units and produced natural gas savings of over 38,000 dekatherms.



Converting to LED lights was the first measure to make Diamond Pointe Apartments more energy efficient.

"There are so many ways that multifamily dwellings can improve energy efficiency," said Jim Phillippo, manager of Minnesota Energy Resources' Energy Efficiency Programs. "There is great potential. And once we show a building owner the success of a first project, they often apply to have their other properties serviced by us."

Tenant savings add up

The Xcel and CenterPoint program "makes great economic sense," said Hartley. "The improvements have meant far fewer repairs, less maintenance costs, more efficient heating that uses less energy and costs less, and utility savings and enhanced comfort for tenants. Reducing energy is also good for the environment.

"In most apartments, tenants are responsible for the electric bill," Hartley continued. "With the change-out to LEDs and other energy-saving measures, tenants may only see savings of \$2-3 a month on their electric bills. But collectively, the savings are significant and add up. For example, insulating around AC units will keep the cool air in and electric bills down during the summertime. The program is really a win-win situation for my tenants and me."

CARD study helps pave the way for utility multifamily programs

Minnesota's Conservation Improvement Program (CIP) helps households and businesses use electricity and natural gas more efficiently—conserving energy and reducing carbon dioxide emissions. CIP is funded by ratepayers and administered by electricity and natural gas utilities.

The Minnesota Department of Commerce oversees CIP to ensure that ratepayer dollars are used effectively in achieving a utility's annual energy-savings goals. Commerce also provides technical assistance to help utilities identify conservation opportunities, calculate savings, and report program results. CIP's Conservation Applied Research and Development (CARD) program funds projects to identify new energy-saving technologies and improve the effectiveness of existing energy conservation programs.

To assist in growing Minnesota's multifamily efficiency programs, Seventhwave and Franklin Energy completed a CARD grant project in 2013 to characterize energy use in the state's multifamily sector and identify untapped energy efficiency opportunities. The project had two components: a best practices study and a building characterization study.

The best practices component explored approaches to building assessment, customer engagement, and program design among multifamily efficiency programs. It gathered perspectives on successful strategies and innovations to help educate decision makers and structure cost-effective programs and incentives to reduce adoption barriers. The characterization component explored the energy savings potential of the multifamily buildings (five units or more) and found there were about 370,000 housing units in Minnesota's multifamily rental sector. Energy use characteristics; efficiency opportunities; tenant demographics, attitudes, and behaviors; and building management and decision-making were identified.

Overall, the project analysis suggested that for multifamily housing with gas heat (paid by the building owner), about 70% of the potential energy and water savings accrue to building owners and 30% to the tenants.

"We certainly drew from a lot of the assumptions reported in the multifamily CARD study, as well as from other studies, to develop our program," said Emma Ingebretsen, co-manager of the Xcel Energy and CenterPoint Energy's Multifamily Building Efficiency Program. "It provided a foundation to build our program."

Visit the Commerce website (mn.gov/commerce) to learn more about CARD projects and the Conservation Improvement Program (<https://mn.gov/commerce/industries/energy/utilities/cip/>).