



CONVENT'S NEW BOILER SYSTEM IS TESTAMENT TO EFFICIENCY

Sacred Heart Convent is home to the Dominican Sisters of Springfield, Illinois, a group of women who have committed their lives to both prayer and action. Their desire to take action on behalf of the environment led the sisters to the Ameren Illinois Energy Efficiency Program in 2011.

"As a congregation, we are committed to restoring wholeness to the planet and living in a more sustainable way," says Sister Linda Hayes, who serves as administrator of the 184,800 square-foot campus.

"We became concerned about our greenhouse gas emissions and wanted to reduce our impact on the environment. Considering the size of this place, we knew there had to be some inefficiencies."

An energy audit conducted by Trane helped pinpoint those inefficiencies and provided an action plan to eliminate energy waste.

The audit found that the convent's 1965 vintage boiler system — which provides heat and hot water for the entire campus — was operating at less than 60% efficiency. That energy waste was compounded by unstable temperature controls and energy losses from steam traps in the centralized distribution system.

"The boiler had many issues. One boiler was really supporting the steam and hot water needs of five stand-alone buildings," says Hayes.

She turned to Ameren Illinois to help fund a major project to decentralize the boiler plant and install five modular boilers and high-efficiency hot water heating systems in each of the convent's five buildings.

"This decentralized approach allowed the convent to heat each individual building as needed and tie into an energy management system that accurately matches energy use with needs," says Mark Steinmetz, Energy Advisor for Ameren Illinois.

Ameren Illinois provided Sacred Heart more than \$161,000 in cash incentives to complete the improvements. That included a \$46,500 Staffing Grant that helped pay the salary of a Trane employee who acted as project manager.

Along with adding new, high-efficiency boilers and hot water heaters, the project upgraded the convent's energy management system with digital controls.

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"In this economy, all types of organizations are trying to squeeze every dollar they can from their budget. And for nonprofit groups, every dollar saved goes to provide a needed service in the community."

— Mark Steinmetz, Energy Advisor



Benefits to Sacred Heart Convent:

- \$91,000 in annual savings
- \$1.8 million saved over life of new HVAC equipment
- \$161,000 in incentives from Ameren Illinois energy efficiency program
- More than 120,000 therms saved every year
- Reduced project payback period
- Lower maintenance costs
- Less environmental impact
- Every dollar saved frees up funds for mission work

Make Energy Efficiency Your Mission

Saving Energy and the Environment

Sacred Heart Convent's new, high-efficiency HVAC system supports the Sisters' sustainability mission by reducing greenhouse gas emissions by 992 metric tons of carbon dioxide — that's equivalent to the emissions produced by 194 cars or 86 homes every year!



With an expected life of 20 years, the new boiler system will save Sacred Heart Convent more than \$1.8 million in energy costs over the course of its operating life.



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"Digital controls allow for more precise energy management and greater comfort," says Steinmetz. The new controls alert maintenance staff if equipment is not operating correctly and allows them to make adjustments remotely — even from home.

Altogether, incentives covered 20% of the \$772,000 project costs and shaved nearly seven months off the project payback period. The incentives also became a key factor in the administration's decision to give the project the green light.

The convent's new, highly efficient system will create a more comfortable environment and reduce annual natural gas use by more than 120,000 therms. That's equivalent to the natural gas used by roughly 127 homes for a year!

Beyond the environmental benefits are bottom-line gains. In fact, those therm savings will save the convent more than \$91,000 a year in energy costs.

"After switching to the decentralized boiler system, we are already noticing a huge difference on our Ameren Illinois bill — it's now less than half of what it was," says Hayes.

And the savings don't end there. Newer equipment and the decentralized system will also save on maintenance and labor costs.

Those savings take on more meaning because they help fund ministries that are at the heart of the mission of the Dominican Sisters.

"Dollar savings enable us to carry out our mission to work with those on the margins of society who have less than they need to sustain themselves."

By sustaining itself using no more energy than it needs, Sacred Heart Convent proves that working with the Ameren Illinois Energy Efficiency Program pays in many ways.

staff UP

Staff Up, Power Down

When your in-house resources are stretched too thin — or you need special expertise to complete an energy efficiency project — Ameren Illinois can help!

Our Staffing Grants can provide up to \$80,000 to help organizations hire the people they need to move energy efficiency projects forward.

Through a competitive process, more than 20 Staffing Grants are awarded each year. The amount of the Staffing Grant varies depending on the estimated energy savings.

"Energy efficiency projects take time away from people within an organization who have other duties," says Energy Advisor Mark Steinmetz. "Our Staffing Grants can be used for internal or external project managers to supervise and execute the project in a timely way."

In 2012, Sacred Heart Convent in Springfield, Illinois, received a \$46,500 Staffing Grant that paid for a project manager position for a major heating system upgrade.

"No one in the motherhouse had the expertise to manage a project of this magnitude and complexity. The Staffing Grant allowed us to hire someone to run the project," says Sister Linda Hayes. As a result, "the project was well planned, well managed and well executed."

To learn more or download an application, go to AmerenIllinoisSavings.com/Staff.

