



Energy Efficiency PROGRAM

Parkland College Achieves Higher Degrees of Efficiency



Since opening its doors a half century ago, more than a quarter million students have chosen Parkland College in Champaign, Illinois, as a stepping stone to success. Beyond creating sustainable careers, Parkland aims to be a more sustainable campus.

“At Parkland College, we strive to become a sustainable organization while teaching and equipping our staff, teachers and students to be sustainable members of the community,” says Jim Bustard, Director – Physical Plant. “The Ameren Illinois Energy Efficiency Program has had a significant influence on Parkland’s endeavor to achieve sustainability.”

The Power of Partnership

With Ameren Illinois as an ally, Parkland continually seeks savings in every corner of the 1 million-square-foot campus. The utility’s energy efficiency incentives make it economically viable to pursue projects that might otherwise be out of reach.

Between 2017 and 2023, Parkland College received more than \$2 million in incentives from the Ameren Illinois Energy Efficiency Program to help fund nearly 50 efficiency projects, ranging from LED lighting and HVAC upgrades to submetering and building automation. These projects have reduced the college’s annual energy use by more than 6 million kilowatt-hours (kWh) and nearly 400,000 therms of natural gas. In terms of greenhouse gas emissions avoided, that’s equivalent to the electricity used by more than 1,200 homes for an entire year.

Understanding Energy Usage

One of the first places Parkland sought savings was in the large refrigeration systems that provide cold water on campus. Ameren Illinois Energy Efficiency Custom Program incentives covered roughly two-thirds of the cost of eddy current testing to detect tube leaks and other imperfections in its aging chillers.

The college also took a deep dive into water flow. Ameren Illinois Energy Efficiency Program incentives covered 100 percent of the cost to install enhanced monitoring equipment and software to capture data on properties like the volume and temperature of water flow.

In 2018, the Ameren Illinois Energy Efficiency Program provided more than \$200,000 in Custom incentives to cover 60 percent of the cost to bring three campus buildings up to modern energy code requirements and incorporate chiller optimization controls. The integration of a new building automation system helped the college identify its largest area for energy consumption reduction.

Grade A Savings

The Ameren Illinois Energy Efficiency Program can help educational facilities — including universities, community colleges and K-12 schools — cut energy costs and improve learning environments. Cash incentives are available for a variety of energy efficiency projects, including:

- No-cost/low-cost energy efficiency improvements
- Lighting upgrades
- Heating and cooling system improvements
- Commercial kitchen equipment upgrades
- LED exit signs and vending controls
- Motor upgrades
- Steam system improvements
- Custom projects

“Without funding from Ameren Illinois, most of these projects would not have been possible.”

— **Josh Houston, Supervisor,
Maintenance**



Since partnering with Ameren Illinois, Parkland College has reduced its annual energy use by **more than 6 million kWh and 400,000 therms** — and counting!

“That is when it became apparent that the chilled water system was not being utilized to its full potential,” explains Josh Houston, Supervisor of Maintenance. “Thanks to the Custom incentive, Parkland was able to implement a project to lower the number of chillers operating, resulting in reduced energy usage.”

Across campus, hundreds of outdated T12 fluorescent bulbs were replaced with high-efficiency LED lighting at a fraction of the cost. In some cases, Parkland paid just \$1 for bulbs normally priced \$5 to \$9, thanks to deep discounts from the Ameren Illinois Energy Efficiency Program. And because LED lights can reduce energy use significantly compared to conventional lighting options, the savings will continue over the long life of those LED bulbs.

Gaining Greater Control

By leveraging the latest technologies, Parkland can precisely control how and when energy is used — without sacrificing comfort. New variable frequency drives on HVAC motors can better match motor speed to the need, while a demand-controlled ventilation system regulates building air flow based on actual need and occupancy. By reducing the amount of air that needs to be heated or cooled, such a system can yield big energy savings and better indoor air quality.

The college also installed networked lighting control (NLC) systems to take LED energy savings to the next level. In fact, a networked lighting system can boost energy savings by nearly 50%.

NLC systems use a combination of sensors, network interfaces and controllers to make targeted lighting changes in specific areas. Motion and occupancy sensors automatically turn lights on or off when someone enters or leaves a room. Timers turn off lights at pre-set times. Photo sensors prevent outdoor lights from operating during daylight hours. And from a single workstation, campus personnel can fine-tune, measure, monitor and maintain their lighting system, while generating data that helps improve operational efficiency.

More recently, the college was able to conserve additional energy by installing new smart thermostats at two locations and integrating them into its building automation system.

“These energy reductions are crucial for Parkland’s long-term viability and leadership in energy management in the community.”

**— Jim Bustard, Director,
Physical Plant**

Energy Advisors at Your Service

As a free service to customers, Ameren Illinois Energy Advisors are available to help your organization reach its energy efficiency goals. Our energy experts are familiar with Ameren Illinois programs and incentives — as well as new technologies and trends — that might benefit your facility. “I advise anyone who has inefficient energy equipment or who is starting new construction to contact their Ameren Illinois Energy Advisor to see how they may assist,” says Josh Houston, Supervisor of Maintenance at Parkland College.

“We programmed schedules to relax the setpoints when the building was unoccupied,” Houston notes. “This was a great benefit because we could limit the temperature range that thermostats could be altered, resulting in significant savings.”

In 2024, the college received a Staffing Grant from the Ameren Illinois Energy Efficiency Program to pay for an assessment of the hot water loop on its main campus — the first step in identifying ways to improve hot water production efficiency.

From sophisticated control systems to long-lasting LED bulbs, the college’s energy-saving efforts also help reduce maintenance costs, while creating safer and more comfortable learning environments for staff and students.

An Education in Efficiency

Today, Parkland staff continues to work closely with Ameren Illinois Energy Advisors on a journey to greater sustainability. Beyond receiving \$2 million in incentives to help cover project costs, future energy savings will allow Parkland College to continue leveraging technology in ways that lessen the impact of rising energy prices.

“Thanks to these energy savings, Parkland has established a Green Revolving Fund, with the goal to reinvest in future energy-saving projects,” says Bustard. “This is a major milestone for Parkland as energy costs continue to rise. These energy reductions are crucial for Parkland’s long-term viability and leadership in energy management in the community.”

By walking the talk on sustainability, Parkland College is ensuring that its mission to “engage the community in learning” includes lessons in energy efficiency. And Ameren Illinois is proud to be part of the curriculum.

“For a community college with limited financing, these savings are critical to reducing building operating costs. Lower energy expenses, in turn, benefit our staff, students and community,” says Houston. “Without funding from the Ameren Illinois Energy Efficiency Program, most of these projects would not have been possible. We are eager to continue working with Ameren Illinois to help us become more energy-efficient.”

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