

ENERGY EFFICIENCY PROGRAM



KNOWLEDGE IS POWER AT BRADLEY UNIVERSITY

Practical knowledge was the heart of the vision held by Lydia Moss Bradley when she founded the school that bears her name in 1897. More than a century later, the Facilities Management team at Bradley University is proving that practical knowledge pays in many ways.

Data Driven

"We are bombarded with increasing costs of operation on every front, and energy is a big piece of the puzzle" says LeRoy Neilson, Facilities Management Supervisor. "Controlling energy use offers significant potential for savings, but you can't control what you can't measure."

Because its primary metered electrical distribution system delivers power to the campus at a single point, the university was unable to pinpoint energy use at the building level. To remedy that situation, Neilson and his like-minded leader, Facilities Management Director Larry McGuire, developed an Energy Management Program based on metering, monitoring, and building automation.

"We were aware of energy waste, but we needed data to support our claims. Our first step was to benchmark current energy consumption," says McGuire. "When we started to pursue this project, it became clear it was a big undertaking and a big opportunity."

Fortunately, energy-saving opportunities are a specialty at Ameren Illinois.

Ally in Efficiency

Through its Metering & Monitoring offering, Ameren Illinois provides a base incentive up to \$10,000 for installation of new monitoring equipment or software. The utility also pays a performance incentive of up to \$20,000 based on the annual energy savings generated from projects implemented as a result of metering and monitoring.

"Advanced sub-metering and energy monitoring can show you when, where, and how much energy is being used in your facility," says Ken Woolcutt, Energy Efficiency Advisor for Ameren Illinois. "This makes it easier to pinpoint specific areas for upgrades."

Those upgrades may qualify for additional incentives through the Ameren Illinois Custom Program or other offerings.

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> LeRoy Neilson, Facilities Management Supervisor, Bradley University

Put Theory Into Practice — and Save!

Ameren Illinois can help educational facilities — including universities, community colleges, and K-12 schools — cut annual 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

Metering and Monitoring: Track Usage. Target Savings.

Advanced sub-metering and energy monitoring can provide crucial insight into energy use in a specific building or area. Ameren Illinois provides cash incentives that cover up to 100 percent of the cost to install enhanced monitoring equipment and software. Additional cash incentives are available for completion of energy efficiency projects, as well as energy saved.



Metering Installation Project Costs



READY TO BEGIN? AmerenIllinoisSavings.com 1.866.800.0747 Bradley University's well-planned project qualified for cash incentives that covered approximately 80 percent of the cost to install enhanced monitoring equipment and software.

"Ameren Illinois incentives were highly impactful in helping us present a solid business case," says McGuire.

Metering, Monitoring & More

With the green light from administrators, in-house electricians — working with Program Allies Ruyle Mechanical and Environmental Control Solutions (ECSi) — began installing submeters at individual buildings across campus, as well as centralized chiller and boiler plants. Over a two-year period, meters will be installed at 23 sites.

The meters will record and trend electrical usage data for each building and feed that data into the school's building automation system. That data will shine a light on areas for improvement

— such as outdated lighting or inefficient HVAC systems — and allow Facilities Management to develop action plans to control energy use.

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— Larry McGuire, Facilities Management Director, Bradley University

"The data confirmed that we can do Dire better. In some cases, we were heating and cooling buildings that were largely unoccupied," says Neilson.

Armed with data needed to drive projects forward, Neilson and McGuire are first targeting upgrades to each building's automation system, which will allow them to deliver comfort at less cost. The projects are eligible for cash incentives under the Ameren Illinois Custom offering.

"Metering, monitoring and building automation go hand in hand — it's an integrated process," says McGuire. "We are building a campus-wide building automation system network as we go. This will allow us to monitor each building and create dynamic setbacks to reduce power use when buildings are unoccupied, saving large amounts of energy."

An Energy Education

The result? Tens of thousands of dollars saved on power bills every year. Ultimately, those funds will help make the practical knowledge cherished by founder Lydia Moss Bradley more affordable.

"A well-run energy management program offers the opportunity to reinvest in the university and de-escalate costs for students," says McGuire.

The two hope to make energy education an informal part of the learning environment at Bradley University.

Neilson says: "As part of our Energy Management Program, our desire is to raise energy awareness across the campus community and create a culture of conservation."

Having proved the adage that "knowledge is power," McGuire and Neilson's precisely planned project earns high marks from Ameren Illinois.

"Bradley University developed a two-year, campus-wide control integration and spending plan — purposely including incentives from Ameren Illinois — to become more energy-efficient," says Woolcutt. "This is one of the best-planned projects we've seen, and it serves as a model for tackling energy waste on a wide scale."

