

University of Wisconsin-Parkside: A shining example in Wisconsin

CASE STUDY

Next time you're at the University of Wisconsin-Parkside, you'll notice a new energy on campus—solar energy, to be exact. As one of southeastern Wisconsin's largest educational institutions, UW-Parkside put Kenosha, Wis. on the renewable energy map in a big way with the installation of a 26-kilowatt solar electric system.

A SMART INVESTMENT FOR YEARS TO COME

Under the guidance of UW-Parkside's Task Force on Sustainability, Don Kolbe, the university's director of facilities management, oversaw the installation of three separate, highly visible solar electric systems across the campus. "We wanted a visual representation of the sustainability initiative that our university has been actively pursuing," said Kolbe.

The three solar electric systems will convert the sun's energy into more than 34,000 kilowatt-hours of renewable electricity each year and help power the campus for the next 30-plus years. These systems produce enough energy to power three single-family homes and offset the release of more than 57,000 pounds of carbon dioxide (CO₂), a greenhouse gas that is a major contributor to global warming.

The environmental attributes of this project are undeniable, but just as attractive is the portfolio of incentives from which UW-Parkside was able to benefit.

ABOUT UNIVERSITY OF WISCONSIN-PARKSIDE

UW-Parkside is a four-year comprehensive liberal arts university that is part of the University of Wisconsin System. The university serves residents of southeastern Wisconsin and northern Illinois on 700 wooded acres located in Kenosha County. The Frank Petretti Fieldhouse is the winter home of the UW-Parkside Rangers track and field, baseball, softball and soccer programs. The De Simone Gymnasium is home to the Rangers basketball and volleyball programs.



A \$50,000 incentive from Focus on Energy, a \$100,000 grant through the We Energies Renewable Energy Development Program, generous donations, and the annual revenue that this system will net all made the renewable project financially viable.

EFFICIENCY FIRST

Before investing in any renewable energy system, it's important to make buildings as energy efficient as possible. That's exactly what UW-Parkside did by giving its Sports and Activity Center (SAC) a green lighting makeover. By implementing energy-efficient lighting measures, the university was able to reduce the building's energy needs, and therefore, the size requirements of its renewable energy system. The result is a smaller, less expensive system that can meet a greater proportion of the building's energy demand.

The university worked with Focus on Energy to make the Frank Petretti Fieldhouse and the Alfred and Bernice De Simone Gymnasium, located inside the SAC, more eco-friendly and energy efficient by replacing its existing metal-halide light fixtures with high-bay fluorescents and adding ceiling-mount occupancy sensors.

For more information,
call **800.762.7077** or
visit focusonenergy.com.



HIGH LIGHTS, SOARING SAVINGS

High-bay fluorescent lighting saves energy and money by producing the same amount of light using 50 percent less wattage. These systems are ideal for large applications such as field houses and gyms where ceiling height exceeds 15 feet.

High-bay fluorescent systems offer many advantages over traditional lighting, including:

- Long life of up to 24,000 hours and the ability to maintain 95 percent of initial light level throughout the rated life
- Advanced capability to work with a lighting-control system and dimmers
- The ability to turn on instantly, requiring no warm-up time

Occupancy sensors save a significant amount of energy by reducing the operating time of lighting systems. When activity is detected throughout the field house, the sensors automatically turn lights on when people enter an area and off when they leave.

This is especially important in large areas when only a small portion of the building is in use. The field house features three full-size basketball courts that can also convert to four tennis courts, six volleyball or badminton courts, or a combination of each. The court area is surrounded by a high-grade, 200-meter indoor track with six lanes for indoor track-and-field meets. Separation curtains enable multiple groups to use the building at the same time. With the curtains open, the field house can host large events with seating for up to 2,000 people.

“The new lighting not only saves energy and helps the environment, but also substantially reduces our energy costs and keeps our budgets down,” said Dan Ferraro, engineering specialist manager at UW-Parkside. “On top of all that, we have a better light quality now that really showcases our fieldhouse and our gymnasium.”

The university also replaced more than 5,000 incandescent light bulbs with compact fluorescent light bulbs (CFLs) throughout the campus. CFLs:

- Last up to 10 times longer than incandescent bulbs, saving time and money on replacements
- Use two-thirds less energy than standard bulbs
- Require fewer watts than incandescent bulbs, to produce the same amount of light

ECO-FRIENDLY, FISCALLY SOUND

UW-Parkside’s environmental leadership has resulted in a campus-wide effort to position the university as a champion of sustainability among Wisconsin universities. Recycling programs, green cleaning products, rain gardens, lighting upgrades and the installation of solar electric systems are all direct results of the conscious decision UW-Parkside has made to bring sustainability to the forefront.

From UW-Parkside’s renewable and energy-efficiency efforts, the campus will ultimately be in a position to save more than 1.2 million kilowatt-hours of electricity annually—enough energy to power 125 Wisconsin homes for a year. The university will then be able to enjoy more than \$97,000 in energy savings on its energy bills each year.

The annual environmental benefits are equivalent to offsetting the burning of 2,400 barrels of oil—eliminating 2 million pounds of the greenhouse gas carbon dioxide (CO₂) from being released into the atmosphere each year.

Focus on Energy, Wisconsin’s energy efficiency and renewable energy initiative, provided technical expertise and more than \$89,000 in financial incentives to help move the energy-savings efforts forward.

YOUR SCHOOL CAN SHINE, TOO

Focus on Energy can help schools and government buildings across the state identify and evaluate energy-saving opportunities, provide specific recommendations, develop energy management plans, find vendors, and arrange technical training opportunities about energy conservation and renewable energy. To learn what Focus on Energy can do for you, visit focusonenergy.com or call 800.762.7077.