

BGE SMARTENERGY SAVERS

Mercy Medical Center Designs New Facility With Energy Savings in Mind

For more than 140 years, doctors, nurses and support staff at Mercy Medical Center have cared for generations of Baltimoreans. Since its founding in 1874 by six Sisters of Mercy, the hospital has counted stewardship among its core values, "constantly striving to balance the good of all with the good of each, and through creative and responsible use of all our resources." Today, Mercy Medical Center continues its legacy of providing nationally recognized healthcare services while doing its part to incorporate sustainability principles into its operations.

Mercy's new Mary Catherine Bunting Center, a 233-bed, full-service community teaching hospital, is outfitted with the latest in energy-efficient lighting, motors and kitchen equipment. Thanks to incentives from the BGE Smart Energy Savers Program[®], the hospital saved \$544,283 off the cost of its energy efficiency projects.

The Opportunity

When aging infrastructure in its old hospital tower would have required costly capital improvements, Mercy opted to build a new facility downtown, reflecting the commitment of the Sisters of Mercy to the people of Baltimore, particularly those of limited means. Hospital officials also planned to incorporate a variety of other green features, including providing on-site gardens, minimizing indoor air pollutants and implementing strategies to conserve energy and water.

"Building energy efficiency into the new space was an all-around smart decision. It's meant lower costs and better reliability for us, and on a larger scale we are helping to create a better environment," says Joe Kirk, Mercy's plant operations manager.





"Because of savings from energy efficiency, we are able to invest more in our employees and improve patient care."

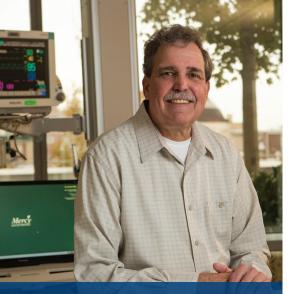
> -Joe Kirk, Plant Operations Manager, Mercy Medical Center

Savings at a Glance

Mercy Medical Center used financial incentives to install energy-efficient lighting, heating and cooling equipment and building management controls in its new teaching hospital in Baltimore.

BGE program:	Energy Solutions for Business
Energy savings:	3,411,571 kWh/year
Incentives paid:	\$544,283





Joe Kirk, Plant Operations Manager, Mercy Medical Center



Retrofitting 460 metal halide fixtures with LED lighting reduced energy demand by 125 watts per fixture throughout the parking garage.



Energy-efficient lighting in the Bunting Center's lobby creates a warm and inviting atmosphere.

The BGE Solution

Mercy consulted with representatives from the BGE Smart Energy Savers Program for advice on incorporating as many energy efficiency measures as possible. Available financial incentives made it more cost effective for the hospital to go the extra mile selecting high-efficiency equipment.

Energy-saving lighting measures installed in the 20-story Mary Catherine Bunting Center included high-performance lighting such as T5 and T8 linear fluorescent technologies, LED downlights and parabolic and advanced fixtures. Although these technologies cost more upfront, Mercy needed fewer bulbs to achieve the same amount of perceived light. Daylight dimming controls installed in patient rooms and offices take advantage of the abundant natural light, while occupancy sensors ensure that lights turn off when spaces are unoccupied, saving energy and money. Plus, by beating the minimum lighting power density (based on ASHRAE 90.1) by 25%, Mercy qualified for even greater performance incentives—\$0.80 per watt—from the BGE Smart Energy Savers Program. In addition, the center completed an LED lighting retrofit throughout its three parking garages, a project that improved safety and offered a payback period of just 1.5 years thanks to available incentives and energy cost savings.

Mercy also took advantage of incentives available for high-efficiency commercial ice machines, which use both energy and water more efficiently than standard models. Ice machines are critical to hospitals, with several typically on each floor and in cafeterias, so they represent an important savings opportunity. Mercy received incentives from \$50 to \$250 per machine depending on the model.

"The BGE account reps guided us through the process, ensuring it went smoothly from start to finish," Kirk says. "It was a great experience. And, in the end, we received great incentives and the payback on investment was quick."

The Benefits

Building a new facility helped solve many of the old hospital's problems. For example, the outdated lights used to flicker. The new lights improved the quality of light throughout the hospital and they last longer, which helps reduce maintenance costs.

The new patient rooms are private and comfortable, offering views and natural light. Every room has space for a family member to stay overnight with the patient. The goal was to design the most pleasant and healing environment possible for everyone who walks into the building. In the end, Kirk says, "the incentive dollars allowed us to incorporate more design items into the construction that otherwise we may not have been able to afford."

The BGE Energy Solutions for Business Program provides financial incentives and technical assistance to help businesses and nonprofit organizations maximize energy efficiency and reduce costs. Financial incentives cover up to 50% of the cost for retrofit projects and up to 75% of the cost difference between standard- and high-efficiency equipment for new construction and replacement of end-of-life equipment. For more information, visit **BGESmartEnergy.com**.

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