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Maine Medical Center garage project installs energy-efficient LED lights - saves $52,500 annually

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By replacing energy-intensive lighting in two of its parking garages with brighter, more energy-efficient LED lights, Maine Medical Center will realize an estimated savings of about $52,500 a year.

The lighting systems in two garages on Bramhall St. were funded in part by Efficiency Maine, which offers businesses incentives to install energy-efficient equipment such as LED lighting, variable frequency drives, and energy- efficient refrigeration and HVAC units. Given a 13-year lifespan for the lighting system, or an estimated $680,000 realized over the life of the system, the energy saved will be about as much as is required to power 62 small businesses for one year.

Efficiency Maine recently presented a plaque commemorating completion of the project to Roger Boyington, director of engineering, at Maine Medical Center.

According to Boyington, the new LED lighting will not only save money, but curtail maintenance costs as well. "LED lights last longer than conventional industrial lighting, which will also save on maintenance, since they last so long and don't need to be replaced as often," said Boyington. "LED lights are also brighter. That means our patients and visitors will feel safer and more secure when parking here."

Efficiency Maine contributed $175,318 in incentives to the total project cost of $402,000.

Besides the significant annual savings, improving the brightness of the lighting is a significant concern, particularly for an institution that exists to provide health and safety. Institutions such as college campuses, clinics, and hospitals, as well as large facilities like malls, are taking a hard look at installing LED lighting systems.

According to LEDcity.org, officials in Raleigh, N.C. conducted formal surveys before and after LED lights were installed on one floor of its municipal garage. They sought to determine if there was significant improvement in respondents' overall perceptions of the garage after LED lights were installed.

In the Raleigh study, a total of 400 surveys were completed, 200 before and 200 after the LED lights were installed. Positive reactions to the facility's lighting were more than three times higher after LED lights were installed. Seventy-four percent of respondents perceived that safety in the garage had improved dramatically. Ratings on maneuverability, cleanliness and number of available parking spaces even improved after the switch to LED lighting.

A number of other Maine hospitals have undertaken energy-efficient lighting projects with Efficiency Maine including Central Maine Medical Center in Lewiston, Maine General Medical Center in Augusta, and Eastern Maine Medical Center in Bangor.

Light-emitting diodes, or LEDs, convert electricity into light. There are numerous benefits to LEDs. They contain no mercury, lead or glass, are long lasting, and can operate well in cold temperatures.

They also turn on quickly.

"Businesses small and large often have exterior lighting, and many of them can benefit from LED conversion," said Rick Meinking, Efficiency Maine's business program manager. "Businesses can often easily save an average of 15% just by changing a few light fixtures. In addition to realizing substantial energy savings year after year, they have a cumulative effect on the overall reduction of energy statewide, which translates to everyone's energy costs going down."