

Mercyhurst University Undergoes Major LED Lighting Retrofit

Athletic facilities are cornerstone of campus-wide upgrades



Customer Profile

Mercyhurst University is home to 24 competitive NCAA Division I and Division II sports teams. The high-performing athletics programs are a great source of pride for students, professors and the surrounding community. In particular, the men's and women's varsity hockey teams have garnered national recognition and earned an enviable reputation.

The Mercyhurst University Ice Center opened its doors in 1991 as the first professional hockey rink of its size in Erie, Pennsylvania. The community benefits of the 35,280 square foot ice center are far-reaching – the rink is one of the most heavily utilized establishments in the city. As a cherished institution in the sports community in the northwestern corner of the state, the rink is not only home to the University's Division I Lakers, but also hosts a variety of other events put on by the Erie Youth Hockey Association and local figure skating clubs.

In addition to the Ice Center, the campus community enjoys eight state-of-the art athletic facilities utilized by athletes and students alike.

The Challenge

Given the competitive nature of its home teams, rink upkeep for the Ice Center and routine basketball court maintenance were of the utmost importance. With the massive amount of power needed to light the buildings that housed these facilities, upgrading the lighting across campus was an integral part of the University's holistic efforts to create the best space for their players and manage utility costs.

Constellation and local channel partner, Pennsylvania-based green energy solutions provider Commonwealth Energy Group, audited the facility to determine how best to improve

the current lighting, which was not up to par for a TV-ready ice rink, fully operating basketball court, or for long-term student recreational use. The Constellation team was additionally tasked to create a financial solution for these renovations. Like many colleges and universities, Mercyhurst also faced a common challenge – how to finance the needed lighting and energy efficiency upgrade without draining their capital budget for other important facility renovation projects.

The Solution

Using the Efficiency Made Easy® (EME) program, Constellation and Commonwealth Energy proposed a comprehensive lighting retrofit project that included replacing a total of 363 lighting fixtures. New lighting fixtures were installed above the ice rink, the basketball court, and the recreation center.

Constellation's award-winning EME program was the ideal solution, as it enables large-scale athletic facilities on academic campuses to upgrade their lighting fixtures and improve efficiency with no upfront capital required. The energy savings essentially paid for the entire project.

With the associated costs of the project already included in the electricity bill and spread out over the term of the EME energy contract, Mercyhurst University orchestrated a widescale installation of new lighting fixtures that immediately improved both the quality of the facilities and made significant cuts to their overall energy maintenance costs.

The Results

Over the years, Mercyhurst University has cultivated strong sports teams through smart investments in its athletic program. The Mercyhurst Lakers varsity men's ice hockey team has grown from a Division III team into a Division I powerhouse over the past 24 years, and the program needed a facility they could be proud to call home now more than ever before. The energy needs of sports facilities are impacted significantly by the use of high intensity lighting, yet, with new and improved lighting renovations that match NCAA standards, Mercyhurst University Ice Center increased efficiency and solidified its standing as a premier collegiate ice hockey facility.

The new LED lighting across campus is not only appreciated by Mercyhurst students, faculty and intercollegiate teams that utilize the athletic facilities on a daily basis, but the residents of Erie as well. The new lighting fixtures will benefit the general public for years to come as the University continues to serve Erie through recreational opportunities and noteworthy programs such as an adaptive ice skating program for aspirational skaters with developmental challenges.

Highlights

- LED lighting system expected to reduce energy consumption by 64%
- Estimated annual energy savings of nearly \$25,000
- Estimated utility rebate of over \$10,000
- Energy savings are expected reduce annual electric usage by 332554 kWh
- Additional annual savings on maintenance due to new equipment that has longer life cycles and newer warranties

Technical Highlights

- Upgraded 363 lighting fixtures to long life LED fixture and conversion retrofits
- 323 watts per fixture to 215 watts per fixture with EME program
- No upfront capital expenditure
- Monthly EME payments will be offset by significant savings on bill from lowered kWh electric usage rate

The Mercyhurst University Ice Center serves as a testament to Constellation's valuable partnerships, showcasing the technical expertise of Commonwealth Energy Group and Constellation's role as a leading energy provider that has a demonstrated passion for sustainability at colleges and universities. Given the successful completion of the Phase 1 lighting project, Mercyhurst University is using the EME program to complete lighting renovations for resident halls and common rooms in 2018. With these new renovations, Mercyhurst University can continue to thrive as an upstanding institution that values the health and well-being of its students as they pursue the highest levels of academic and athletic achievement.

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