NoCo Ice Center



CASE STUDY

Location: Ft. Collins, CO Application: Ice Hockey Facility

Essentials Series 4.0 (ES4)

The ES4 delivers superior performance, quality and versatility in low bay and high bay applications. Designed with an even higher efficacy and a best-in-class thermal management, the Essentials Series provides the highest reliability and best lumen maintenance in the industry while providing the lowest TCO..

RESULTS

NoCo Ice Center replaced 32 400W metal halides with 244W Essentials Series High Bays. In the offices, they installed Linear Series 2.0 (LR2). The upgrade increased the footcandles, plus it reduced energy and maintenance costs. \$8,400 ANNUAL SAVINGS

51,000 ANNUAL KWh SAVINGS

\$3,600 MAINTENANCE SAVINGS

OVERVIEW

The NoCo Ice Rink was built in 1999. The 18-yearold facility continuously had problems with its metal halide lighting, which was draining the nonprofit's budget. In mid-2016, the facility installed Essentials Series High Bays, allowing them to brighten the facility while lowering operating costs.

CHALLENGE

Every time a light went out at the Northern Colorado lce Center in Fort Collins, CO rink manager Chris Brodzinski had to rent a lift. He also had to find a parent who was an electrician to rewire ballasts – a move to save money since the rink is owned by a nonprofit - or hire an electrician to do the job. He also had to cancel ice time if the rink was rented.

"We were constantly spending more money to maintain the lights and running into all kinds of issues," Brodzinski says. When a metal halide light went out, it cast a dark shadow on the rink, which was already dim as the lights only provided a footcandle reading of 27.5 to 32.8. The lights needed to be replaced immediately for safety reasons. Replacements didn't always emit the same light, and some would burn in, becoming much brighter than the lights next to them, creating a patchwork of different lighting levels and colors.

Since the rink is used some 20 hours a day all year round by more than 550 youth hockey players and another 300 adult players, the lost revenue was meaningful.

SOLUTION

The facility entertained bids from energy companies offering metal halide retro-fits, another which suggested switching to fluorescents, and two suggesting they move to LED technology. "We determined LEDs would last a long time and were best suited for us from an energy savings and cost payback," Brodzinski says.

The NoCo Ice Center chose to work with Ally Energy Solutions, a Houston, TX-based company that is a



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We now have some really clean, crisp lights. We didn't realize how dingy some areas were because the metal halides had such a yellow glow. We actually had to paint some walls because we could see how dirty they were."

> - Chris Brodzinski CO Rink Manager

leader in building full-service energy cost management and efficiency solutions for commercial and industrial customers.

Ally Energy replaced 32 400-watt metal halide lights with Essential High Bay LEDs, each at 244-watts, significantly lowering the rink's energy costs. The new LEDs also brightened the rink considerably, providing 67.7 to 79.3 footcandles.

The superior customer service and product performance made them our top pick to partner with us on this project," says Troy Moran, Ally vice president.

The lighting design by Ally allowed the fixtures to be closer to the ceiling, which reduced the heat on the ice surface, which in turn further reduced energy spent running the rink's two compressors to cool the ice.

RESULTS

When Ally Energy finished installing the lights in mid-2016, players, parents and visiting coaches commented on how much brighter the rink was. "The second they walked in they said, "Wow, this building looks bright and crisp. Thank you for bringing us to the next level.' This was one item they could feel a part of since they helped contribute to the lights," Brodzinski says. The rink has reduced its maintenance budget by some \$200 to \$400 a month by eliminating the need to rent a lift since LEDs last for years. The facility's energy bill has reduced, dropping some \$700 a month, allowing the rink to cut bills annually by an estimated \$8,400. Coupled with the maintenance savings, the switch to LEDs is saving the organization a conservative \$12,000 annually.

The rink's lighting controls, installed and programmed by Ally Energy, have further reduced its energy costs while adding flexibility. "I can turn on or off each individual light, dim each one or just illuminate the flag during the national anthem," Brodzinski says. "Typically we run at 80 percent and still get double the foot candles. I dim them to 40 percent for practices and 10 percent during scheduled maintenance."

Brodzinski is now working with Ally Energy to switching the parking lot lights to LEDs and analyzing the entire facility to see where they can afford to make additional energy saving measures. "They are a great company to work with," he says.

As a member of the Rocky Mountain Rink Association, Brodzinski is spreading the word about his LEDs. "I've told them that LEDs will change the dynamics of their hockey, will draw more people in and it will lower their energy costs. It's really a no-brainer."





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