

BetaLED® Project Brief Overview

Tri-State Generation and Transmission Assoc. – Westminster, CO



PROJECT SUMMARY

“It’s like night and day—almost literally. The new LED lighting is a **huge improvement** over the standard technology in terms of **brightness and illuminating the space.**”

*Mike McCoy
Senior Engineer and Energy Specialist
Tri-State Generation and Transmission Association*

End User:	Tri-State Generation and Transmission Association
Application:	Parking lot LED conversion
Products:	34 BetaLED® THE EDGE™ area lights; Type V distribution with 13,668 initial delivered lumens each
Benefits:	<ul style="list-style-type: none">• Replaced (34) 400-watt metal halide luminaires (consuming a nominal 458 watts) in a one-for-one replacement with 217-watt LED luminaires from BetaLED.• THE EDGE solution will reduce the energy load by two-thirds.



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Extreme makeover brings big reduction



Tri-State Generation and Transmission Association put its long-standing commitment to energy efficiency into action when it installed BetaLED lighting technology in the East parking lot of its headquarters in the north Denver suburb of Westminster, Colorado.

The parking lot's extreme makeover consisted of replacing all 34 of the existing 400-watt metal halide lights (field measured at 455-watts) with 217-watt THE EDGE luminaires from BetaLED. The new lighting system will reduce the energy load by two-thirds. The expected lumen depreciation rate of the luminaires is approximately one-percent per year based on correlated IESNA LM-80 data. Compare that to a metal halide lighting system that may potentially depreciate at greater than 10 percent per year.

According to Tri-State senior engineer and energy specialist Mike McCoy, a large portion of the payback calculation is based on the longevity of the new lights. "The fixtures have a lifespan reaching far beyond the anticipated application life," he explained, "with cost savings stemming not only from less equipment purchased, but also from the elimination required to service lamps and ballasts." McCoy used the existing light poles, reducing the cost for the replacement system.

Tri-State is a regional electric power supplier with interest in energy and maintenance savings and a goal to be on the leading edge of outdoor lighting. The BetaLED installations are serving as demonstrations for the company's member electric co-ops, other utilities, and business owners who may be interested in instituting similar technology at their facilities.

"Simply put, we see this project as an example of what one company is doing to increase energy efficiency, protect the environment and save money during these tough economic times," McCoy said. Tri-State is recognized as the first company in the Rocky Mountain region to institute this type of lighting technology on this scale.

The success is dramatic when comparing before and after nighttime photos of the parking lot. "It's like night and day – almost literally," McCoy said. "The new LED lighting is a huge improvement over the standard technology in terms brightness and illuminating the space."

