

LED Technology Helps Prominent Denver Office Tower Double-Down Savings on Parking Garage



“We **doubled the lumens** throughout the garage for just 20% of the electric use. That’s **\$2,000 in savings** per month.”

GREG GEIGER
Operations Manager
Westfield Property Services, LLC

Situation: Wanting more of a good thing

1800 Larimer is a major office tower with a significant presence on the Denver skyline. When built in 2010, the high-rise structure was LEED Platinum certified, which meant that its energy efficiency and sustainability technologies were state-of-the-art. But management of the 23-story building wanted to do more to keep current with energy efficiency practices.

Problem: A semi-dark garage

The building enjoyed high-efficiency standards, however, the three-level underground garage was shadowy. The original metal halide lights were beginning to yellow and dim. Some tenants commented they had trouble seeing their keys as they approached their cars. Westfield Property Services, led by operations manager, Greg Geiger, decided to incorporate a complete retrofit for this garage. “We wanted better lighting and greater energy efficiency to stay in step with our LEED certification, and to help the bottom line.”

Solution: Rebate customization comes through

Xcel Energy account manager, Sharon Panas, worked with Westfield to put together a hybrid plan that used the best of both prescriptive and custom rebates to answer the needs of Westfield management. By combining an LED lighting plan (using custom rebates) with occupancy-sensing devices (that leveraged prescriptive rebates), a high-impact, energy efficiency lighting plan was created.

Xcel Energy now offers a selection of prescriptive rebates for LED parking garage fixtures through the Lighting Efficiency program. This means it’s now easier for customers to implement these rebates in their energy efficiency programs.

FINANCIAL SNAPSHOT

Project	Replaced 180 175W metal halide fixtures with LED parking garage fixtures
Project cost	\$84,000
Xcel Energy rebate	\$15,800
Total annual energy savings (kWh)	266,000 kWh or approximately \$24,000 per year
Payback	2.8 years

The existing 180 halide lamps were replaced with LED parking garage fixtures that were fitted with motion-sensing applications. Geiger recalls testing one of the LED fixtures to get initial approval. "We turned it on and within a second our building manager said, Wow! Yes!" Geiger continues, "This LED capability is really stunning. Literally, it's a better quality of light."

Science of Light 101

What makes light appear brighter? The Kelvin scale is a numerical measurement describing the color appearance of light. It is a scale from roughly 1500 (a candle), 4000 (fluorescent bulbs), 5000 (noon sunlight), to 8000 (light blue sky light). The installed LEDs had a rating of 5700 Kelvin, so the light was not only brighter, it also delivered a wider spectrum of color.

Another term to know is lumens. They measure the total "amount" of visible light emitted by a source.

"Not only were the main areas of the garage better lit, but we were able to double the lumens of the perimeter areas," Geiger stated.

Results: The savings are clear to see

The brightness of the parking facility was amplified by the financial advantages. In fact, Westfield doubled the lumens throughout for just 20% of the electric usage. Geiger continues, "We are saving with the lower wattage operations of the LED fixtures. When combined with the motion-sensing dimmers, we cut energy usage even more. Just on the electricity we are saving \$2,000 each month."

The above-mentioned electricity savings equated to a 3.6-year ROI (return on investment). With the Xcel Energy rebates of \$15,800, that ROI shifts down to just 2.8 years! That is convincing evidence for financial decision makers who often can't see beyond a two- to three-year horizon.

What's next?

Geiger mentioned that LED wall pack replacements are being considered for a small alley section on the property, as Xcel Energy also offers rebates for those. "The current LED technology and cost savings are remarkable."



Contact us to learn more.

If you want to explore Lighting Efficiency Rebate program opportunities, contact your account manager or an energy efficiency specialist at **1-855-839-8862**. Visit xcelenergy.com/LightingEfficiency for more information.