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Photo by Eli Frick

"Control over lighting is very important to us. We can dim the LED lights from 100% to 10%, or anywhere in between, and do it on an hourly basis."

– Eli Frick,
Parts & Service Director,
Longmont Ford

Longmont Ford: controlling energy costs with LED parking lot lights

Longmont Ford at 3rd and Alpine Street, like most automobile dealers, has a very large outdoor parking area with a lot of high wattage lights that used to stay on all night.

Not anymore. Longmont Ford recently completed a lighting retrofit in its parking lot that will reduce their annual electric usage by approximately 258,000 kilowatt-hours (kWh) and save the company more than $17,000 a year.

"We've been interested in upgrading our parking lot lights for several years," said Eli Frick, Parts & Service Director, "but we didn't really like any of the different options until about a year ago. Then we finally found a technology we liked, looked good on the lot, reduced energy consumption and lowered our maintenance costs."

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Efficient, Brilliant Light

The technology is a new light emitting diode (LED) fixture. LEDs are rapidly evolving and adapting to new applications for indoor and outdoor use.

“Once we found the right light, we decided to go for it,” said Frick.

Longmont Ford replaced 23 1000-watt metal halide fixtures and 44 400-watt metal halide fixtures with just 44 366-watt LED fixtures.

Longmont Ford also installed a lighting control system that enables the company to schedule hours of operation and the amount of light used.

“For example, we can dim the light output to 20% at closing time (8 p.m.), 10% and midnight and off at 2 a.m,” said Frick.

Longmont Ford received a lighting rebate of $10,824 from Platte River Power Authority and a $5,000 business efficiency grant from LPC.

LEDs Explained

LEDs, or light emitting diodes, are semiconductors that produce visible light when an electrical current passes through them. They provide longer life, higher quality light, use significantly less electricity, and produce less heat compared to incandescent, high-pressure sodium, Halogen and some fluorescent fixtures.

Parking Lot Lighting Retrofit

Old fixtures:
- 23, 1,000-watt metal halide fixtures
- 44, 400-watt metal halide fixtures

New fixtures:
- 44, 366-watt LED fixtures with reflector kits

Total project cost: $97,454 with light control system

Total incentives: $15,824 (16.2% of project cost)

Net project cost: $81,630

Estimated annual energy savings: 258,000 kWh

Estimated annual electric cost savings: $17,544

Simple payback: 4.7 years

“Our incentive for doing this project was aesthetics and reduced energy consumption, not the rebates,” said Eli Frick. “I thought the amount of the rebates was very generous, but we are more impressed with how the new lighting looks and the amount of energy we are saving.”