

Dialight LED Traffic Signals

City of Centennial, Colorado Saves More than \$50,000 a Year with Dialight LED Traffic Signals

As part of a city-wide sustainability initiative, officials in Centennial, Colorado recently completed a project to upgrade each of the city's traffic and pedestrian countdown signals from traditional incandescent units to Dialight's high-efficiency, low-maintenance ITE-compliant LED traffic signals. The project, funded by the U.S. Department of Energy's Energy Efficiency and Conservation Block Grant Program (EECBG), not only improved visibility for drivers and pedestrians, but is expected to save the city \$50,000-\$60,000 a year in energy and maintenance costs.



Dialight LED Traffic Signals installed in the City of Centennial, Colorado

Modern City, Progressive Planning

Appropriately named in honor of its citizens' September 2000 vote to incorporate, the City of Centennial is not only one of the youngest cities in the State of Colorado, but also the safest. With a vibrant community that blends the convenience of city living with the beauty of semi-rural neighborhoods, Centennial has been named Colorado's safest city for six years in a row. Home to nearly 110,000 residents, the city's backdrop against the picture-perfect Rocky Mountain skyline makes it one of the most beautiful in the Great American West.

In a progressive move intended to improve driver and pedestrian safety and reduce energy consumption and expenses, the city has recently completed a full replacement of its out-dated incandescent traffic signal balls, arrows and pedestrian indications with Dialight's ultra-energy efficient ITE-compliant traffic and pedestrian signals.



Dialight Countdown Pedestrian Signal

"Safety, reliability and overall brightness were significant concerns," said Craig Faessler, P.E., City Traffic / Transportation Engineer with the City of Centennial. "But, so were the energy consumption and maintenance costs. An upgrade to all-LED addressed all of these issues."

In addition to the fact that some of the faded lenses were at least 20 years old – as old as the signals themselves—the units consumed an exorbitant amount of energy and demanded nearly continuous maintenance with regular bulb changes to keep motorists and pedestrians safe. After a competitive bid process, Centennial chose Dialight units provided by Traffic Signal Controls, Inc., a Colorado-based Dialight distributor, for their efficiency and affordability.



Installation Snapshot

- ▷ Total # of red, green, yellow balls & arrows - 1,545
- ▷ Replaced - 150W incandescent with 8W LED
- ▷ Total # of pedestrian signals - 233
- ▷ Replaced - 50W incandescent with 6W LED
- ▷ 572,000kwh annual savings
- ▷ \$56,000 energy & maintenance savings

Dramatic Energy Reduction = Significant Savings

In a two-phase project, fully funded by the EECBG program, the city replaced 1,288 red/yellow/green balls, 142 red/yellow/green arrows and 232 pedestrian countdown timers in Phase One, with the remaining 85 balls, 30 arrows and 1 pedestrian signal changed out in Phase Two.

Replacing the 116W incandescent signals and arrows with energy-sipping 8W LED units and the 59W incandescent pedestrian signals with 6W LED units is predicted to shave 572,000kWh off the city's electric bill, for a total energy savings of \$36,000 per year. And, because the LED units will last at least five years—and likely even longer—Centennial expects to save \$20,000 in annual maintenance costs by eliminating bulb changes, which also increases safety for signal technicians and motorists by eliminating unnecessary traffic control.

In another sustainability effort, Centennial is converting its school zone beacons to solar power.

"In addition to the energy efficiency, Dialight's products were the most affordable on the market to meet our needs, and the added bonus of the 5-year warranty sealed the deal," Faessler said.



For more information about Dialight's high-efficiency, low-maintenance ITE-compliant LED traffic signals, visit www.dialight.com.

Dialight LED product offering



Street Light



Roadway Sign Light



Preemption



Traffic Balls



Traffic Arrows



Pedestrian Signals

Dialight reserves the right to make changes at any time in order to supply the best product possible.

The most current version of this document will always be available at:

www.dialight.com/news/details/Centennial_Case_Study