



# City of Portland Green Purchasing Case Study

## LED Lighting for Fueling Station Canopy

### Purchasing Green

In early 2011, CityFleet overhauled its largest fleet fueling station, including the station's canopy. Since the canopy was already being replaced, CityFleet took advantage of the opportunity to also switch the canopy's high pressure sodium lighting fixtures with BETA LED fixtures. The new LED fixtures are more energy efficient, provide better lighting, and simplify maintenance.

### Benefits

LED fixtures emit light that is significantly brighter than high pressure sodium light fixtures – a crisp, clean white light similar to natural sunlight. Additionally, the new fixtures focus light directly on the intended area, with little to no light “bleeding” outside the canopy. Because of this brighter light and more light control, the new canopy did not require additional fixtures despite being one third larger than the old canopy. CityFleet replaced the canopy's 10 high pressure sodium fixtures with 10 BETA LED fixtures, and actually reduced the overall amperage required.

### Cost

Each LED fixture costs approximately \$720, more than double the cost of a high pressure sodium fixture. However, CityFleet expects to see a full return on their investment in 6-7 years through energy savings, estimated at 40 percent.

CityFleet will recoup additional savings from decreased replacement costs. High pressure sodium lights last 3-4 years while LED lights last about 30 years, or 100,000 hours (operating between 8-10 hours a day).

The fixtures also reduce maintenance costs. LED fixtures are flush mounted and water tight, so each fixture can be pressure washed while the old fixtures required staff to utilize an aerial ladder to manually unscrew and remove the casings to clean the bulb coverings, a very labor intensive and time consuming process.

### Performance

CityFleet is very satisfied with the LED fixtures and would recommend them to others considering switching to this technology. In fact, CityFleet is so pleased with these fixtures' performance that they installed the same LED lights at their body shop in August 2011.



*LED lights provide a bright, focused light for CityFleet's fueling station canopy.*

### At a glance –

#### *Who –*

- CityFleet

#### *Product –*

- BETA LED fueling station canopy lighting

#### *Cost –*

- Purchase price is more expensive than traditional fixtures
- Decreases energy use by 40%
- Reduces maintenance costs

#### *Benefits –*

- Brighter light and more light control
- Requires fewer fixtures to achieve desired lighting

*“The light coming from the LED canopy lights is a clean, crisp, white light that produces a much brighter work area while reducing the amount of energy required to run them. They are saving us money and promoting a safer work area.”*

Don DePiero,  
Vehicle Maintenance Superintendent,  
CityFleet

## Lessons Learned

Overall, CityFleet found the installation of LED fixtures to be a simple project, and would have retrofitted the existing canopy with these fixtures regardless of the canopy replacement. The entirely new canopy simply made this project even easier.

■ September 2011

---

## About CityFleet

CityFleet's seven repair facilities maintain Portland's 2,950 vehicles and equipment. This includes parking patrol vehicles, sedans, pick-ups, vans, police sedans, dump trucks, back hoes, and heavy construction equipment. They perform oil, lube, and filter changes; DEQ emission inspections; and engine, transmission, drive train, electrical, suspension, heating, cooling, and air conditioning diagnoses and repairs. CityFleet garages are also certified Eco-Biz Automotive Shops, a designation that recognizes their commitment to minimizing their environmental impacts. CityFleet was also named as one of the Top Elite Fleets by Government Fleet Magazine in 2011 and 2012, after being named #1 Fleet in 2010.

**For more information:** Don DePiero, Vehicle Maintenance Superintendent, CityFleet, 503-823-1804.

---