



## Project Summary

Pasadena City College in Pasadena, CA, a leader in environmental initiatives, was eager to replace their more than 34,000 fluorescent tubes with high-efficiency, long-lasting LED tubes. The project achieved two main objectives: reduce energy costs and carbon footprint as well as further the college’s reputation as a leader in sustainability.

**End User:** Pasadena City College, Pasadena, California

**Application:** Conversion of all fluorescent tube lighting in classrooms, offices, stairwells, parking structures, gymnasium, and mechanical rooms of 26 buildings

**Products:** ■ RVLT LED Tube

- Benefits:**
- \$600,000 to \$750,000 per year savings in energy costs (55%)
  - 3.5 million per year savings in kilowatt hours
  - Reduction of college’s carbon footprint reduced by over 5.6 million pounds per year

## Project Overview



Using the California Multiple Award Schedules (CMAS) Contract #4-11-56-0041A, the Pasadena City College’s massive lighting retrofit project was designed to further the college’s position as a global leader in sustainability, while allowing large levels of savings

in the areas of energy cost, manufacturing resources, and disposal cost and impact.



Tons of <b>Coal</b> Saved @ 0.08 lbs. per kWh	202,531 lbs.
Gallons of <b>Oil</b> Saved @ 0.07 gallons per kWh	177,215 gals
Pounds of <b>Carbon Dioxides</b> Saved @ 1.95 lbs. per kWh	4,936,698 lbs.
Pounds of <b>Sulfur Dioxides</b> Saved @ 0.008477 lbs. per kWh	21,461 lbs.
Pounds of <b>Nitrogen Oxides</b> Saved @ 0.004092 lbs. per kWh	10,359 lbs.

## Project Overview (con't)

As stated by Dr. Richard van Pelt, CFO and Assistant Vice President of the college at the time of the project installation, *“We start saving money on the first day the LEDs are installed, so the payback is instantaneous!”*



## Cost Analysis

### Annual LED Life-Cycle Cost Analysis

#### Existing Fixtures

Fixture	Number	Energy Use (kWh)	Cost/Unit	Total Cost
4' Fluorescent Tubes	34,000	4,765,440	\$ 0.13	\$ 619,507
Maintenance	34,000	-	\$63	408,000
<b>Total Costs for Period</b>				<b>\$ 1,027,507</b>

#### RVLT LED Tubes

Fixture	Number	Energy Use (kWh)	Cost/Unit	Total Cost
RVLT 4' LED Tubes	34,000	2,233,800	\$ 0.13	\$ 290,394
Maintenance	-	-	-	0
<b>Total Costs for Period</b>				<b>\$ 290,394</b>

#### Savings

	Savings
Energy Savings	\$ 329,113
Maintenance Savings (est.)	408,000
<b>Total Savings LED Fixtures</b>	<b>\$ 737,113</b>

Using the RVLT LED tubes results in an overall savings estimated at more than \$600,000-750,000. With a 55% savings in energy costs and additional maintenance savings the project will have an estimated simple payback of 5.6 years.

Visit [www.rvlti.com](http://www.rvlti.com) for more information.

*Numbers are calculated at the time of installation and may not reflect current upgrades to lighting fixture components.*