PG&E LED Street Light Turnkey Replacement Service

Non-binding price estimate to be used for budgetary purposes only

City of: **County of El Dorado**

Date of this estimate: **17-Nov-2011** **Expiration date of this estimate:** **17-Dec-2011**

Number of Lights to be Replaced	Voltage	Type	Wattage (Nominal/Actual)	Rate	Suggested Replacement LED
127	240	HPS	200/237	LS-2	90 LED Gen D 575 @ 175.2 Watts
33	240	HPS	250/293	LS-2	90 LED Gen D 575 @ 175.2 Watts
4	240	HPS	310/348	LS-2	90 LED Gen D 575 @ 175.2 Watts
164					

Total Project Price:	$159,655
Total PG&E Rebates:	$21,525
Net Estimated Price:	$138,130

Total Equipment/Material Cost	Total Non-equipment Cost
$95,078	$43,053
Installation Cost Percentage	31%

Total Project Price with Performance Payment Bonds Cost	$170,831

Energy cost savings in first year*:	$6,015
Energy savings (kWh/year):	49,495
CO2 reduction (lbs/year):	25,935
Avoided maintenance expenses in first year:**	$1,148

Simple Payback (Energy Only): 22.97

*Project Price Notes:

Price includes purchase of requested street lights, installation and field verification of installed lights, disposal service, rate change and rebate application processing.

No permitting costs included in total project price.

Project price assumes all lights to be replaced will be cobra head fixtures and will not include post top, shoe box, tear drop, or decorative fixtures

Project price assumes all street lights to be replaced are currently in operating condition.

Project price assumes no restrictions on installations will be made (e.g.--heavy traffic area, special hours for installation, etc.)

Project price assumes all street lights to be replaced are at an operating voltage between 120-240 volts AC.

Notes:

*Future year savings will grow with the expected increase in electricity and labor costs.

**Avoided maintenance expenses are compared to maintaining HPSV lights.

***The street light manufacturer is BETA LED.

Assumptions:

» 4100 operating hours annually
» $0.12153 $/kWh electricity cost
» 0.524 lbs/kWh emission factor
» $26 per year maintenance cost for HPSV
» $19 per year average maintenance cost for LED
» City has full jurisdiction over street lights

PG&E LED Parking Light Turnkey Replacement Service

Non-binding price estimate to be used for budgetary purposes only

City of: **El Dorado County ETAP Placerville**

Date of this estimate: **17-Nov-2011** **Expiration date of this estimate:** **17-Dec-2011**

Number of Lights to be Replaced	Voltage	Type	Wattage (Nominal/Actual)	Rate ($/kWh)	Suggested Replacement LED
33	120/240	HPS	400/451	0.106510667	STR LWY XM HT 09 D UL 700 ML
28	120/240	HPS	400/451	0.106510667	STR LWY XM HT 09 D UL 700 ML
6	120/240	MH	250/307	0.106510667	ARE EDR XM AA 06 D UL BZ 700 ML
0	120	HPS	100/120	0.08623	FLD EDG XX AA 04 C UL XX 525 R HL
0	120	HPS	100/120	0.08623	FLD EDG XX AA 04 C UL XX 525 R HL
0	120	HPS	100/120	0.08623	STR LWY XM HT 02 D UL 700 ML
1	120/240	MH	250/307	0.106510667	STR LWY XM HT 09 D UL 700 ML
5	120	HPS	150/176	0.106510667	STR LWY XM HT 02 D UL 700 ML
2	120/240	HPS	400/451	0.106510667	STRLWY 3M AA 09 D UL IP UTL R
75					

Total Project Price:	$127,825
Total PG&E Rebates:	$4,727
Estimated ETAP Rebate (By others)	$0
Net Estimated Price:	$123,097
Total Project Price with 15% Contingency	146,998
Total Project Price with Performance Payment Bonds Cost	$157,288

Total Equipment/Material Cost	Total Non-equipment Cost
$89,341	$38,483
Installation Cost Pecentage	30%

Energy cost savings in first year*:	$10,070
Energy savings (kWh/year):	94,548
CO2 reduction (lbs/year):	49,543

Simple Payback (Energy Only): 12.22 Years

*Project Price Notes:

Price includes purchase of requested light fixtures, installation and field verification of installed lights & disposal service.
No permitting costs included in total project price.
Energy costs are modeled on LS-2 assumptions for cost and operation (4100 hours per year.)
ETAP Rebate not included; El Dorado County's project on the ETAP Waitlist as of this quote date.
Energy savings assume full operation 30% of hours and 30% operation during 70 % of hours.
Project price assumes no restrictions on installations will be made (e.g.--heavy traffic area, special hours for installation, etc.)
Project price assumes all fixtures to be replaced are at an operating voltage between 120-240 volts AC.
Project price assumes some modification to poles required to accept NAFCO fittings (Qty = 80)

Assumptions:

» 4100 operating hours annually per light -- assumes photo control operation consistent with LS-2 control requirements
» $/kWh electricity costs shown above are estimates based on light locations.
» 0.524 lbs/kWh emission factor