

TAKE **5** FOR ENERGY CONSERVATION!



City of Shafter Sees the Light!

The City of Shafter has come a long way from the 1950's, when cotton was king and the city was heralded as the Potato Capital of the world. Shafter has diversified since John Steinbeck spent time there researching his book, *The Grapes of Wrath*. Since 1990, Shafter has increased its city limits by twenty-five square miles, including the International Trade and Transportation Center (ITTC). The 1.7 million square foot Target Distribution Center, which anchors the ITTC, is just a few miles south of Minter Field Airport. Along with civic progress comes challenges for the city staff. This includes addressing population growth, managing



Outdated High Pressure Sodium Street Lamp

changes brought on by new laws, and working with ever-changing funding sources.

For Mike James, Public Works Director, maintaining city infrastructure while keeping pace with growing residential and industrial requirements is, shall we say, a handful? Residential

developers constructed independent residential projects in the City of Shafter. This created ten special landscape and lighting districts managed by James. He had to prioritize these districts according to urgency. However, with shrinking funds, chances for needed repairs were getting slimmer. Help came from a combined effort of Kern Energy Watch, the San Joaquin Valley Clean Energy Organization (SJVCEO), the San Joaquin Valley Air Pollution Control District and PG&E. The federal funding originated from the "American Recovery Reinvestment Act (ARRA)", also known as "The Stimulus". Local funding was identified from PG&E's Light Emitting Diode (LED) Street Light Program.

When James heard about the funding possibility, he was interested. Yet he wondered how he could possibly administer another grant. That's when he discovered,



New Energy Efficient Cobra LED Street Lamp

through the Kern Energy Watch program, the SJVCEO was planning to consolidate the project needs of thirty-six San Joaquin Valley jurisdictions into one umbrella grant. This would provide a turn-key approach starting with the SJVCEO administering a grant for just five percent of the funding received. PG&E would perform



This program is funded by California utility customers and administered by PG&E, SCE and Southern California Gas Company under the auspices of the California Public Utilities Commission. Program services and benefits are offered on a first-come, first-served basis until December 15, 2014 or until program funds are spent, whichever comes first.

TAKE **5** FOR ENERGY CONSERVATION!



an audit to determine the project scope. Then they would calculate the expected savings from replacing outdated High Pressure Sodium (HPS) lighting with energy efficient LED lights in a targeted landscape and lighting district.

PG&E completed the audit which determined to replace 135 lights in the first year. Per Cynthia Bryson of PG&E, the savings estimate of 42,538 kWh would generate an electricity cost savings of \$5,410 and an approximate maintenance cost savings of \$952 for the City of Shafter. She also stated there is an added benefit of reducing carbon dioxide (CO2) emissions by approximately 22,290 pounds per year. These reflect annual savings and will continue to increase each year. The cost of the project was \$74,475 with PG&E providing \$9,650; the remaining \$64,825 came from the ARRA grant managed by the SJVCEO. James presented this information to the Shafter City Council and all agreed this is a win-win.

The story does not end there. The project came in under budget by nearly \$11,000. This was just enough to purchase a new 150 hp premium efficiency motor for a water pump for Well 11. Swapping out the old electric motor with the new premium efficiency motor is projected to increase performance by 28%.

James stated, "This has inspired me to look at possible projects that would fit the criteria of PG&E's on-bill financing. My suggestion to other communities: Keep an open mind and do your research."



Shafter Project by the Numbers Lighting Project & Motor Replacement

Actual Project Cost	\$74,475
Minus PG&E Rebate	\$ 9,650
Net Estimated Price Provided by Grant Funds	\$64,825

Total Grant Funding	\$75,314
Total Cost of HPSV Street Light Replacement	\$64,825
Remaining Money for Premium Efficiency Electric Motor	\$10,489

Energy Savings Estimates

Energy Expense Savings First Year	\$5,410
Avoided Maintenance Expense in First Year Compared To HPS Lights	\$952
Kilowatt Hours Savings Per Year For Both Lights and Motor	42,538
CO2 Reduction Lbs. Per Year	22,290

Here's how to get your Kern Energy Watch advantage!
Visit: www.kernenergywatch.com



This program is funded by California utility customers and administered by PG&E, SCE and Southern California Gas Company under the auspices of the California Public Utilities Commission. Program services and benefits are offered on a first-come, first-served basis until December 15, 2014 or until program funds are spent, whichever comes first.

www.kernenergywatch.com