

### Situation Analysis

Upon enrolling in The Energy Network program, the City of Culver City identified Department of Energy (DOE) funding that was available to make energy efficiency upgrades to the Watseska Parking Structure. Due to the DOE funding's fast-approaching deadline to identify and complete the project, the city required a quick project turnaround. The city chose to utilize The Energy Network's One-stop Turnkey Project Delivery option for the project because it enables public agencies to expedite energy efficiency retrofit projects without compromising the project's cost competitiveness and quality.



By using The Energy Network's free services for the project, the city was able to use 100% of its DOE funding on project construction costs (\$65,864) rather than spreading the money out to also include project management and technical assistance consulting services. Another benefit of working with The Energy Network was that the city realized energy

cost savings two months sooner than would have been possible through a traditional retrofit project process.

In addition to the financial and energy savings, the project also improved public safety due to better lighting in the parking structure which is used by local business owners, city employees and the general public.

### Project Summary & Benefits

The Wateska Parking Structure lighting energy efficiency project took 7.5 weeks from project kick-off to construction completion and entailed a one-for-one retrofit of 151 150W high pressure sodium fixtures to new 80W induction fixtures.

The key benefits of the project include significant energy and maintenance savings including:

- Reduction of the parking structure's annual energy use by 56 percent, which equates to 126,034 kWh and \$17,512 in savings
- Installation of more reliable and longer life induction lighting fixtures which will help the city save approximately \$1,464 annually from reduced maintenance and material costs of lamp and ballast replacements over the average 15 years life (DEER EUL\*) of the 150W high pressure sodium fixtures

### Turnkey Project Delivery Services Utilized

- ✓ Project management and energy engineering support
- ✓ Lighting energy audit and analysis
- ✓ Financial analysis of project costs, expected monies and energy savings
- ✓ Performance specification development assistance
- ✓ Access to competitively bid lighting contractors through National Joint Powers Alliance (NJPA)
- ✓ Set lighting fixture pricing through Indefinite Quantity Contracting (ezIQC)
- ✓ Contractor cost proposal negotiations to meet budget requirements
- ✓ City Council presentation assistance
- ✓ Construction management support
- ✓ Utility incentive identification and application assistance

\*DEER EUL The Database for Energy Efficient Resources (DEER) is a California Energy Commission and California Public Utilities Commission (CPUC) sponsored database designed to provide well-documented estimates of energy and peak demand savings values, measure costs, and effective useful life (EUL) all with one data source.

	# of Fixtures	Existing Equipment	New Equipment	On-Bill Electric Savings*	Annual Electric Cost Savings	Estimated Maintenance Savings	Total Annual Savings	GHG Savings
Project Savings Breakdown	151	150 Watt High Pressure Sodium (HPS)	80 Watt Induction	126,034 kWh	\$17,512	\$1,464	\$18,976	18.63 tons CO <sub>2</sub> e

\*Total modeled savings from existing baseline to proposed baseline

	Gross Project Costs	Total Utility Rebates	Net Project Costs	Net Present Value (NPV)	Savings-to-Investment Ratio	Return on Investment	Simple Payback (years)
Financial Breakdown	\$73,234	\$10,212	\$63,022	\$188,356	3.99	243.3%	3.3

### Definitions

**Gross Project Costs** includes all costs including costs borne by the agency and costs covered through the Energy Network services. The agency cost includes construction and contingency costs.

**Total Rebates** are total amount (\$) of rebates available for the project.

**Net Project Costs** are equal to the Gross Project Costs less the Total Rebates.

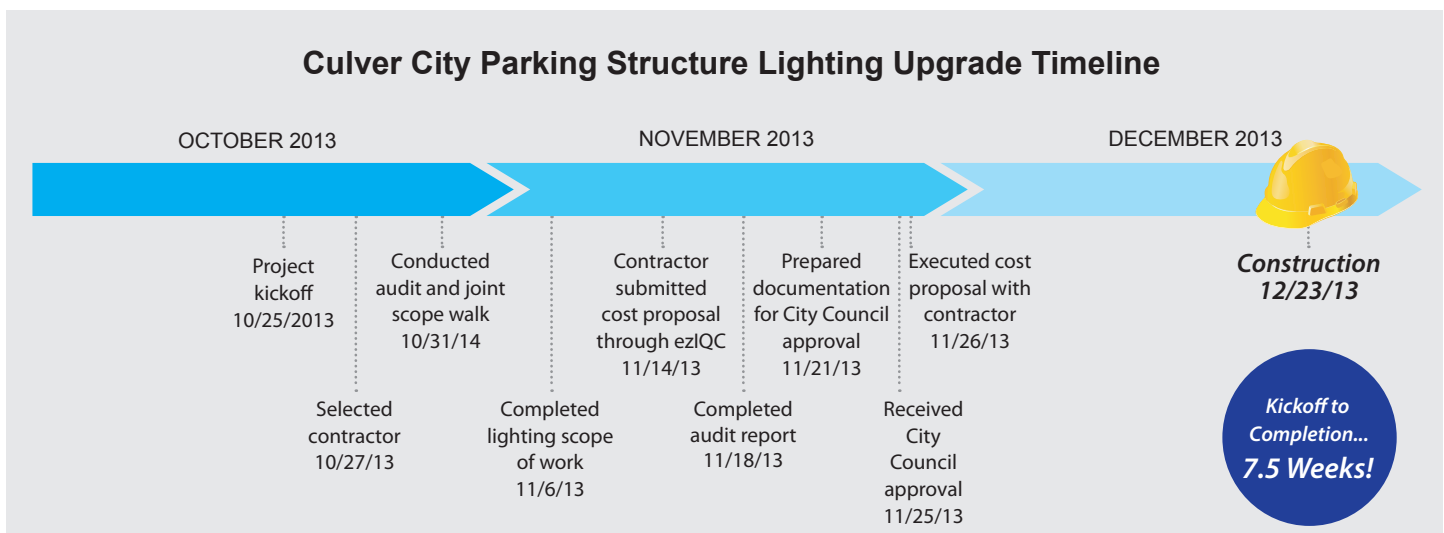
**Savings-to-Investment Ratio (SIR)** is the value of benefits from a project divided by its cost.

**Return on Investment (ROI)** is the annual percentage return from a project, where annual cost savings include the net present value of both utility cost savings and maintenance cost savings over the life of the project.

**Simple Payback Period** is the amount of time required to recover the initial costs of a project from its savings.

**NPV** assumes energy cost savings and project costs in the detailed audit calculations. Equipment measure life is based on Effective Useful Life of 15 years for LED street lights.

### Culver City Parking Structure Lighting Upgrade Timeline



For more information, visit [www.theenergynetwork.com](http://www.theenergynetwork.com)

This Program is administered by the County of Los Angeles and funded by California utility ratepayers under the auspices of the California Public Utilities Commission.