



Western Riverside Council of Governments Streetlight Program surpasses expectations

Siemens Mobility's expertise expedites LED conversion process

usa.siemens.com/mobility

The energy savings were immediate and greater than expected when the Western Riverside Council of Governments (WRCOG) in Southern California began its LED conversion program of over 50,000 streetlights in 11 participating jurisdictions. After Siemens Mobility installed the last of 40,952 new LED lights in August 2020 – four and a half months ahead of schedule – WRCOG reported that its Regional Streetlight Program was surpassing the original goal of 50% to 65% in energy savings. In fact, there's been a 70% reduction in energy consumption across the region.

The conversion is expected to generate annual costs savings of over \$5.4 million for the 11 jurisdictions combined. The 20-year combined energy and utility annual savings could reach up to \$100 million.¹ Since streetlights often represent a city's largest energy expense – one that can keep growing if left unattended – the savings have a major impact on the bottom line.

Annual Savings for Participating Jurisdictions

Jurisdiction	Streetlight Count	Annual Savings
Eastvale	4,104	\$512,830.95
Hemet	3,982	\$409,647.12
Jurupa Community Services District	1,897	\$235,092.94
Lake Elsinore	3,787	\$452,785.70
Menifee	6,470	\$804,795.80
Moreno Valley	9,283	\$395,965.00
Murrieta	6,374	\$802,745.27
Perris	4,414	\$552,963.97
San Jacinto	1,901	\$233,081.59
Temecula	6,619	\$854,798.59
Wildomar	1,404	\$185,211.52
TOTAL	50,235	\$5,439,918.47

"Having Siemens Mobility as our contractor was very pivotal for us completing the project ahead of schedule. It was impressive to see how they were able to meet deadlines, the needs of WRCOG and requests from the jurisdictions during the project – they are very flexible."

Daniel Soltero
Staff Analyst
Western Riverside Council of Governments

"Siemens Mobility did an outstanding job for us. And being part of the RFP process, I can say they were definitely the best candidate for the project."

Patrick Thomas
Director of Public Works/City Engineer
City of Temecula

¹ The \$100 million savings does not include debt payments for financing jurisdictions. The net savings, including debt payments, is estimated to be up to \$70 million over 20 years.

Streetlight conversion improves lighting, saves energy

To ensure a successful streetlight conversion, WRCOG selected Siemens Mobility as its lead contractor on the project. Siemens Mobility had already provided advisory services during the lighting selection process based on its years of installing and maintaining streetlights. As the lead contractor, Siemens Mobility would be responsible for coordinating between cities and the local utility, conducting audits and documentation, and completing the physical installation and commissioning on time and on budget.

Asset confirmation and project management

WRCOG's Streetlight Program became possible when Southern California Edison, the local utility, decided to sell its streetlights to cities. Agreement had to be reached on the assets that were to be sold. As the streetlight contractor and as part of the development process, Siemens Mobility facilitated all of the calls and meetings between the local jurisdictions and the utility company.

"Siemens Mobility's experience was crucial in reviewing the data received from the utility as part of the asset confirmation process," said Daniel Soltero, WRCOG Staff Analyst. "Siemens Mobility could look for patterns in the data to discover wattage errors and issues related to energy savings. They helped us get some additional credits from the utility company."

Menifee auditing

Siemens Mobility also provided auditing services for the City of Menifee. The Siemens Mobility team performed site assessments to identify, document and create a database of information for 200 additional streetlights. Additional engineering and installation of equipment will happen in 2021.

LED retrofit program

Siemens Mobility managed all aspects of the installation process, ensuring the project met all city requirements for work in the right-of-way. This included traffic control and safety procedures to protect employees and citizens alike. Siemens Mobility also managed additional requests from the jurisdictions since this project would have a significant impact on the communities.

For the actual installations, Siemens Mobility managed all day-to-day operations, including procurement, scheduling the work with each city, setting the timelines between cities and workforce management. A team of up to 16 electricians installed the 40,952 LED streetlights, an average of 2,275 lights per month or 568 lights per week. At the height of the activity, Siemens Mobility installed almost 6,000 lights in one month.

Temecula wireless control system

The City of Temecula also worked with Siemens Mobility on the installation of a wireless lighting control system

for 6,000 streetlights. The control node was installed concurrently with the streetlight retrofit program. The wireless control system employs a mesh network that automatically connects when both the nodes and the gateways are in place.

The system allows for real-time management of the lights. For example, the City of Temecula can now brighten or dim all lights, groups of lights or individual lights as needed. Smart city applications such as this lighting control system further reduce energy consumption beyond the LED conversion.

Ongoing maintenance

WRCOG also selected Siemens Mobility to provide streetlight maintenance to the participating jurisdictions that will increase the reliability of their lighting service. Siemens Mobility currently has over 100 maintenance contracts in the area, for both traffic signals and streetlights. There are local maintenance offices in San Diego, Riverside and Anaheim, California as well as Massachusetts, Georgia, Texas and Florida. Other large Siemens Mobility installations include 60,000 streetlights in Cleveland and 30,000 in Knoxville, TN.

Energy saved

The WRCOG Regional Streetlight Program saves 17.4 million kilowatt hours. This is equivalent to:

- The annual energy consumed by 2,086 homes
- The emission reduction of taking 2,661 cars off the road
- Charging of 1,571,009,816 smartphones



Teams of Siemens Mobility electricians installed 40,952 LED streetlights for the 11 participating jurisdictions involved in the Western Riverside Council of Governments' retrofit program. At the height of the activity, Siemens Mobility installed almost 6,000 lights in one month.

Siemens Mobility, Inc.

One Penn Plaza
New York, NY 10119

All rights reserved
© Siemens Mobility, Inc.
(12/20)