



SIEMENS

Ingenuity for life



City of Wasco

A Central California community employs on-site solar to create a perfect place for its sustainability minded residents.

usa.siemens.com/totallycities

In Central California, a new 6-acre solar field sits on a formerly uninhabitable site, turning what was once useless land into a new source of savings, and pride, for the city of Wasco. Working with Siemens, community leaders have helped turn a local eyesore into a symbol of sustainability and fiscally responsible stewardship. Through this new solar field, Wasco is saving in excess of 60 percent on its energy usage and costs associated with treatment and distribution of wastewater.

Client Objectives

Wasco is a city of 26,000 situated northwest of Los Angeles in California's agriculturally rich San Joaquin Valley. Aided by the region's sunny weather and rich soil, Wasco has become renown as one of the leading growers of roses in the United States.

Similar to many other municipalities, water pumping and distribution, along with the treatment of wastewater, make up over 30 percent of the town's total energy costs. Powering these operations consumes 4.7M kWh annually, or approximately \$713,000 of the city's budget.

The residents of Wasco are known to be passionate about environmental stewardship. Community leaders wanted to modernize their energy portfolio to reflect those beliefs by incorporating more renewable energy resources. Additionally, Wasco had long sought to make use of a large, vacant lot. This land served as a burn dump for residents until 1972 – when it was capped and remediated. Due to environmental concerns, the California Environmental Health Agency prevented previous projects from building on the site.

With help from the right partner, Wasco could address all three of their challenges – reduce energy costs related to water distribution and treatment, increase their use of renewable energy, and make better use of their uninhabitable land.

"We're tapping into a program that will offset our energy costs for water pumping and treatment, and we're able to make creative use of a site that would otherwise be left vacant."

Gilberto Reyna
Mayor of Wasco

Wasco is guaranteed energy savings averaging over \$570,000 per year from its new, 6-acre solar field.

Siemens Solution

The city of Wasco chose the Building Technologies division of Siemens to help chart a path forward. With Siemens on board, the team began by conducting a feasibility study of the burn dump site, adjacent to the town's water treatment plant, to determine if it was suitable for building. After careful consideration, Siemens proposed the installation of a solar field on the site that had remained unoccupied for over 40 years.

Utilizing smart engineering, Siemens was able to install the entire solar field without penetrating the ground at the site – protecting the town's citizens and wildlife. The site is now home to a series of solar arrays spanning 6 acres and generating 1.8MW of power for Wasco.

The renewable energy produced by the solar field is reducing the city's previous water-related energy expenditures by roughly 60 percent. Siemens guarantees these savings for Wasco through the

use of a guaranteed performance contract. The contract projects \$8.6 million in savings for Wasco over its 15-year term. If savings fall short in any one year, Siemens provides the difference.

"We're tapping into a program that will offset our energy costs for water pumping and treatment, and we're able to make creative use of a site that would otherwise be left vacant," said Gilberto Reyna, Mayor of Wasco. "We're looking forward to the years ahead."

Customer Results

In its first full year of operation, Wasco's solar field is projected to result in \$410,687 in energy savings and a reduction of 2.8M kWh in total energy usage. To make the entire project possible, Siemens helped Wasco capitalize on a program with the local utility that allowed the city to build up to 5 MW of renewable generation on one site. The program also provides an ongoing credit for excess solar energy produced by Wasco.

"This project means a great deal to our city, and it's our first ever renewable energy project," stated Mayor Reyna. "By the end of the performance contract, we're projecting to have saved enough energy to power nearly 3,100 homes for a year." Siemens will also continue to provide maintenance and troubleshooting services for the solar field over the term of the contract.

The expected energy savings over the life of the contract total more than \$570,000 annually. These savings will free the city to take on additional capital improvement projects – enabling Wasco to continue to be a leader in environmental sustainability and be responsive to the needs of its citizens.



Siemens Industry, Inc.
Building Technologies Division
1000 Deerfield Parkway
Buffalo Grove, IL 60089
Tel: (847) 215-1000

All rights reserved
© Siemens Industry, Inc.
08/18