



# Antelope Valley College



“Our new solar energy system, car charging stations, central cooling plant and data center, along with the numerous energy efficiency improvements made through this project give the District more than \$1.1 million net savings in the first five years. We’re delighted that ENGIE Services U.S. was able to offer a comprehensive energy project that delivers great value to our budget’s bottom line.”

Jackie L. Fisher, Sr., Ed.D, President, Antelope Valley College

## THE OPPORTUNITY

Antelope Valley College (AVC), located in the northern part of Los Angeles County, serves a diverse and evolving student population with general education, vocational, and four-year college transfer programs. Like many other community colleges, AVC was seeking ways to maintain and improve its facilities without raising student fees. Starting in 2005, ENGIE Services U.S. (ENGIE) began working with AVC to develop a multi-phased program of comprehensive facility upgrades that could be implemented with little impact to the campus operating budget.

## THE PARTNERSHIP

ENGIE engineered and installed energy efficiency improvements and a solar photovoltaic (PV) power system at the Lancaster campus after tapping in to statewide solar incentive programs to kick-off the energy savings opportunity. Efficiency improvements include a new chilled water plant and energy efficiency controls, lighting upgrades and irrigation control upgrades.

The project was structured to leverage solar incentive payments and energy efficiency rebates as partial funding. Taking advantage of other upgrades already taking place across campuses, ENGIE also helped the College implement IT solutions related to

### Program Highlights

- Captured \$25MM of savings over the lifetime of the project
- Secured \$2.27MM in solar incentive payments and over \$708,000 in energy efficiency rebates
- Avoided 2,176 metric tons of CO<sub>2</sub> per year

### Technical Scope

- 1.1 MW solar photovoltaic power generation system mounted on canopy structures in two parking lots
- New central cooling plant with two 800-ton chillers
- Campus-wide interior and exterior lighting upgrades
- New data center to house the main distribution frame, including cost saving virtual server technology



### Technical Scope (continued)

- Expansion of energy management system and upgrades to existing HVAC controls
- Irrigation controls upgrades
- Parking lot improvements
- Four electric vehicle charging stations

improved server and network capacity across campuses. In June 2011, AVC celebrated the completion of the comprehensive energy program at its Lancaster campus that generates clean renewable energy, lowers utility costs, and improves classroom environments.

### 3 DIMENSIONS OF IMPACT

ENGIE is committed to building three dimensions of impact in every customer's future:



**Supporting People**



**Saving Money**



**Protecting the Environment**

Over the course of the long partnership, ENGIE has helped support the College's vision to achieve a fully integrated, multi-phase campus improvement program. From improved lighting to enhanced classroom environments and campus safety, to solar shade structures and the addition of new data center and virtual server technology, AVC students and staff are benefitting from the College's new opportunity to leverage energy savings for other education initiatives.

The program is expected to reduce annual electrical utility usage by more than 50 percent and save the College more than \$25 million over the life of the project.

Environmental benefits translate to 2,176 metric tons of CO<sub>2</sub> avoided per year, which is equivalent to the carbon sequestered annually by 1,783 acres of average U.S. forest. These carbon offsets support the state's clean energy goals.

