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## ESTANCIA ESTATES

### CASE STUDY



**BACKGROUND:** In 2009, Constellation Wines U.S., the country's leading premium wine company, committed to establishing the largest solar footprint in the U.S. wine industry. Estancia Estates winery, in California's central valley, is the second of their facilities to see the installation of a solar system that will provide 100% of its electricity needs.

#### **THE CHALLENGE:**

Constellation Wines U.S. was committed to installing a large enough solar system to provide 100% of the energy needs of Estancia. The winery processes and bottles a number of premium wines at this facility, using energy intensive machinery and temperature control technology. The wine-making operation takes place in a six separate buildings with diverse roof conditions.

#### **Project Overview**

<b>Location:</b>	Soledad, CA
<b>Completion Date:</b>	December 2010
<b>Size of System:</b>	1.125 MW
<b>Peak Capacity:</b>	1,715,328 kWh/year
<b>No. of Modules:</b>	4,164 modules
<b>Products:</b>	Suntech pV modules

## THE SOLUTION:

A total of 4,164 solar modules were installed over six separate buildings. Racking for the arrays was customized to suit the complexity of the roof surface of each structure. The winemaking operations were uninterrupted during the entire install.



## THE BENEFITS:

- This system, as part of the total Constellation Wine U. S. solar commitment, will save \$1 million annually.
- Rebates and tax incentives from the American Recovery Act and the California Solar Initiative paid for a significant percentage of the project cost.
- Approximately 1,715,328 kWh per year will be produced to cover 100% of the winery's electrical needs.
- Together with other winery systems, the Estancia system will contribute to reducing the CO2 emitted into the environment by 4.5 million lbs. The 1 MW system benefits are equivalent of removing 237 vehicles from the road, powering 164 homes, or 248 acres of forest planted annually.

