

# Winery Case Study



## Project Profile

Both designed and built by **SolarCraft** of Novato, California, this large commercial solar electric system will provide 100% of the winery's annual electricity consumption for its production facility in Carneros, CA.

The custom engineered aluminum mounting structure works well with the structural capacity of the winery's steel warehouse and fermentation buildings, while giving the panels a slight tilt to the south. The winery's roof is roughly 50,000 square feet and now supports 1974 Sharp 208 watt solar panels. The 34,625 square feet of high capacity solar panels will generate roughly 411 kilowatts peak. The system will generate enough electricity to completely eliminate expensive peak-period usage, while also selling excess power back to the

local utility company for credit. The credits are sold to the utility company at peak rates and the customer uses them back during nights and winter.

**SolarCraft** assisted Cline with the applications for the solar energy rebate program with the Public Utilities Commission. In March 2005 the PUC approved the project and the system was installed.

Cline Cellars' goal is to be energy independent — creating predictable energy and costs. Towards that goal, **SolarCraft** first assessed and reduced the winery's energy demands. **SolarCraft** advised Cline Cellars to install energy saving lights throughout the facility, and an insulating urethane foam roof that reduces cooling costs in the summer by up to 30 percent. The winery also contracted **SolarCraft** to completely upgrade its electrical infrastructure to support the increased capacity.



## Specifications

<b>System Size</b>	411 kW DC 351 kW AC
<b>Location</b>	Sonoma, CA
<b>Solar Panel</b>	(1974) Sharp 208W
<b>Inverter</b>	(1) AE Solaron 333 kW
<b>Mounting System</b>	Unirac — Sunframe
<b>Estimated Annual kWh</b>	586,000
<b>Estimated Annual Savings</b>	\$92,000
<b>Cumulative Cash Positive</b>	5-6 Years

## Customer Profile

Cline Cellars is a family owned and operated winery that produces super and ultra-premium wines in the Carneros district of Sonoma Valley. The winery specializes in handcrafted Zinfandels and Rhone style wines that are bold and well structured and sourced from their vineyards in Sonoma and Contra Costa Counties. Cline Cellars produces and markets wines under the following labels: Cline Cellars, Red Truck and White Truck.

Just 45 minutes north of San Francisco in Sonoma's premier wine country, Cline Cellars was once the site of a Miwok Village and the first camp of the Sonoma Mission.

## About SolarCraft

**SolarCraft** is one of the most experienced solar energy contractors and retailers in California. For more than 24 years the certified "Green Business" has been providing Solar Thermal and Solar Electric services including consulting, design, installation, monitoring and maintenance. **SolarCraft** has installed more than 4,300 solar energy systems in California with over 1.3 million square feet of solar collector surface area, saving customers more than \$7 million annually and preventing production of more than 28,000 tons of greenhouse gases every year.

*"SolarCraft worked with us every step of the way. We are very happy with the form and function of the panels. This has been a win-win project from the beginning. The winery is eliminating huge energy bills, flat-lining our operating budget for energy costs and improving air quality by reducing 690,000 lbs. of noxious greenhouse gases per year. Project timing was ideal to capture both the state rebate incentive and new federal tax credits."*

**Peggy Phelan**  
Director of Operations  
Cline Cellars Vineyard