

# Winery Case Study



## Project Profile

Sterling Vineyards' 72 kW solar electric system in the Napa Valley was both designed and installed by **SolarCraft**. Sterling's famed aerial tram is now powered by the sun. The aerial tram at Sterling is the only one of its kind in Napa Valley, offering stunning views as visitors ride up to the winery, perched 300 feet above the town of Calistoga.

The 72 kW solar electric system at Sterling is comprised of two separate solar energy systems. One system will power Sterling's aerial tram. This system is 55.5 kW, consisting of (264) SunPower PowerGuard 210 watt insulated solar roof tiles installed on the roof of the Reserve Winery located at the bottom of the hill. SunPower PowerGuard solar roof tiles provide reliable, clean electricity while insulating and protecting the

roof. The added insulation saves up to 30% more energy by reducing the building's heating and cooling load.

The second system is ground mounted and will provide power to the winery's water treatment facility. It will generate 16.5 kW of power and consists of (72) SunPower high efficiency 230 watt panels.

The new system will enable Sterling Vineyards to generate enough clean electricity each day to power 36 average homes. The new system will spare the air nearly 64 tons of harmful greenhouse gases annually. Over the next 30 years, the air pollution saved will be equivalent to driving over 4.3 million miles. The system will pay for itself in 5-6 years.



## Specifications

<b>System Size</b>	72 kW DC 63 kW AC
<b>Location</b>	Napa, CA
<b>Solar Panel 1</b> <b>Solar Panel 2</b>	(264) SunPower 210 W (72) SunPower 230 W
<b>Inverter 1</b> <b>Inverter 2</b>	(8) SunPower 6000m (2) SunPower 7000m
<b>Mounting System</b>	Powerguard Roof Tiles
<b>Estimated Annual kWh</b>	105,621
<b>Cumulative Cash Positive</b>	5-6 Years

## Customer Profile

Sterling's iconic winery is perched high above the town of Calistoga on a mid-valley hill. Sterling Vineyards is well known for offering guests the most unique winery tour in Napa Valley. From the aerial tram up the mountain to the bold beauty of the winery's Greek-inspired architecture, from the comprehensive self-guided tour to the stunning wines themselves, Sterling Vineyards has attracted visitors for over 30 years. Sterling Vineyards wine is produced by Diageo Chateau & Estate Wines (DC&E), part of Diageo, the world's leading premium drinks business.

## About SolarCraft

**SolarCraft** is one of the most experienced solar energy contractors and retailers in California. For more than 25 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.

*"Sterling has long had a commitment to sustainable farming practices and a concern for preserving our unique Napa environment. The conversion of the memorable Sterling Tram to clean, renewable solar power just makes environmental and economic sense. This is another step in our overall commitment to increase our conservation efforts."*

**Michael Westrick**  
VP Winemaking, Sterling Vineyards