

Civic Case Study



Project Profile

Sonoma's Police Department is now powered by clean energy from the sun. The 62.4 kW solar electric system will offset nearly 70% of the annual bill for the Police Department/Community Meeting room. Excess power will be fed back into the PG&E grid for credit towards future use.

The roof-mounted system utilizes 279 U.S. manufactured Sharp 224 watt solar panels. The panels cover 4,900 square feet of the south facing roofs, and help shade and protect the building, reducing summer cooling load. The system is expected to generate 89,000 kilowatt hours annually.

SolarCraft's winning design is unique. Each of the 279 solar modules is controlled by individual micro-inverters manufactured by

Enphase Energy of Petaluma, CA. The micro-inverters were the solution to a shading issue caused by a telecommunications tower on the south side of the building. Unlike more conventional solar electric systems, the micro-inverters will allow the rest of the solar modules to produce at full capacity no matter how many panels may be shaded, and greatly increase the overall system efficiency.

SolarCraft also installed an Enphase Enlighten monitoring system, providing unprecedented visibility into the performance of each module. Enlighten's website shows a graphical representation of the solar array, with at-a-glance information of each module's status. The monitoring system is publicly displayed in the Community Meeting Room lobby.

Specifications

System Size	62.4 kW DC 52.4 kW AC
Location	Sonoma, CA
Solar Panel	(279) Sharp 224 W
Inverter	(279) Enphase M190
Mounting System	ProSolar Quick Mount
Estimated Annual kWh	89,126
Cumulative Cash Positive	5-6 Years

Customer Profile

In 2004, the City of Sonoma contracted with the Sonoma County Sheriff's Department to provide law enforcement services. The Sonoma Police Department still provides the same high level of service it always has, and has added several new positions in response the community needs.

Under the direction of Chief of Police Bret Sackett, the department is staffed by two Sergeants, nine deputies, a School Resource Officer, a Traffic Officer, two Community Service Officers and two administrative positions.

About SolarCraft

SolarCraft is one of the most experienced solar energy contractors in California. For more than 26 years this certified Green Business has been providing Solar Thermal and Solar Electric services including consulting, design, installation, monitoring and maintenance. **SolarCraft** is a full-service solar contractor, employing licensed and certified solar installers who are experts in their field. Since 1984 **SolarCraft** has installed more than 4,500 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.

