

Solar Case Study: Fire Station



Bodega Bay Fire Protection District Profile:
The BBFPD provides emergency and prevention services to District citizens and visitors, thereby managing the risk from fire, medical, natural disasters and other emergencies.
Visit: www.bodegabayfire.com

The Challenge: Design and siting of the system was a major concern due to the station's highly visible location on Highway One, at the south end of Bodega Bay. The design needed to satisfy the BBFPD, its neighbors, and the California Coastal Commission.

The Solar Solution: The resulting system design features a low-profile, ground-mounted array that follows the natural contour of the hillside. As viewed upslope from Highway One, the system is mostly viewed "edge on," allowing it to better blend into the surrounding landscape. Importantly, the solar panels are positioned so that sunlight is reflected from the highway. To further reduce the visibility of the panels, a hedge of native, drought-tolerant bushes were planted on three sides of the array.

The Results: The new 19.6 kW (AC) solar system is expected to generate 34,288 kWh (kilowatt hours) every year, which will meet approximately 93% of the fire station's annual electrical demand. The system is estimated to keep 24 tons of CO₂ out of the atmosphere annually, which is the equivalent to over 18 acres of trees storing carbon each year. This is SolarWorks' second fire station installation, the first being a 10 kW system on the Sebastopol Fire Station.

"Board of Directors sees solar energy as one of the few investments our district can make that will continue to give returns to the community long after the current Board and employees are gone," says Cathy Beck, President of the Bodega Bay Fire Protection District.



John Parry, SolarWorks founder and owner, explains the new solar system to Fire District supporters.



100% Solar Satisfaction
*Independently verified
by Diamond Certified*

Solar Specifications

- Electricity Now Supplied by Solar: approximately 90%
- System Size (CEC Rebate Rating): 19.6 kW
- Solar Panels: 108 panels, nominally rated at 200 watts each
- Inverters: three SMA Sunny Boy 7000-watt, 240V, grid-tied
- Mounting System: UniRac

