



General/Electrical Contractors, CA Lic.#940535

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## MANZANA PRODUCTS CO.

### CASE STUDY



**BACKGROUND:** The Manzana Products Co., an historic apple cannery in Sebastopol, CA , processes and packages a number of apple-based products such as apple juice, applesauce, and vinegar for private labels. The Company planned ahead for a roof-mounted solar system array when they built a new warehouse in 2009.

#### THE CHALLENGE

The Manzana Products Co. facility needed to have a solar system large enough to meet the energy needs of processing tons of apples at the height of the season. While the available roof space was large enough to accommodate the majority of modules needed, additional footage was required. One Sun, Inc. proposed a solar array awning structure. Trenching across two access roads and through 100 yr.-old infrastructure would be required for conduit. The Company required continuity of processing operations throughout installation.

#### Project Overview

<b>Location:</b>	<b>Sebastopol, CA</b>
<b>Completion Date:</b>	<b>October 2010</b>
<b>Size of System:</b>	<b>392.6 kW</b>
<b>PV Surface Area:</b>	<b>28,647 sq.ft.</b>
<b>No. of Modules:</b>	<b>1,708</b>
<b>Products:</b>	<b>Siliken pV modules; IronRidge racking .</b>

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## **THE SOLUTION:**

Four solar module arrays were installed on one 42,000 sq.ft. roof. A custom 280 ft. attached awning was designed by One Sun, Inc. and constructed on the side of the same structure to hold the additional required modules, providing extra kWh output. Trenching for conduit was executed across access roads and through existing infrastructure without interruption of production traffic or facility operations. The historic structure was unmarred.



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## **THE BENEFITS:**

- The system will produce 506,807 kWh of electricity a year offsetting 56% of the facility's energy requirements.
- The California Solar Initiative rebate (pretax) and federal tax grant paid for 55% of the project cost.
- The system will save the company approximately \$ 98,000 in utility costs the first year.
- The 392.6 kW DC solar PV system reduces the amount of carbon dioxide emitted into the environment by 509,807 lbs. annually. The equivalent of removing 34 cars from the road or powering 48 homes.

