

Shell Solar

Residential Customers, The Pavlinas

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case study

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Homeowners Save Kilowatts and Dollars With earthsafe™ Solar Electric System

Challenge

Southern California residents George and Jane Pavlina wanted to do their part to help the environment. They liked the idea of “using the power of the sun” to reduce the amount of electricity they needed from their local utility, the Los Angeles Department of Water and Power (LADWP), but they needed to find out if a solar electric system was technically and economically feasible for them.

Solution

When it came time to replace their roof the Pavlinas researched a solar electricity solution -- including the current LADWP and state incentives -- and decided to proceed with a solar installation. They contacted Graham Owen of The GO Solar Company, a Shell Solar earthsafe solutions provider, who installed a 2 kW Shell Solar earthsafe system on their roof. He also completed the Pavlina's LADWP rebate application and informed them of their eligibility for a California State tax credit.

The Pavlinas were extremely happy with The GO Solar installation. In George's words, their earthsafe solutions provider “did a professional job—to/above code, neat looking ... and the darn thing works!”

Benefits

Electricity output from the Pavlina's earthsafe system **reduces electricity required from their utility by more than 50%**. Comparing their LADWP electric bills and watching their electric meter spin backwards provide visual confirmation that they are making a positive contribution to the environment.

Although their primary motivation for installing a solar electric system was environmental, the Pavlinas do enjoy smaller LADWP bills and having **more dollars in their pockets every month**.

Using solar electricity for more than half of their electricity needs also **insulates the Pavlinas from future utility rate increases**.

Another unexpected benefit from the earthsafe system is a cooling effect from the solar panels on the roof: it is about 15% cooler in the attic and the family room below.

There's also the benefit of having a silent energy producer. George says he doesn't know of any other power producer that's so quiet and that “there isn't even a hum.”

The maintenance costs have been virtually zero. George just hoses off the panels about once a year and “scares the spiders out of the inverters once in awhile!”



George and Jane Pavlina are happy about making a positive contribution to the environment and having more money in their pockets every month.



Cooler Family Room, Easy Maintenance and Silent Operation Offer Additional Benefits



The completed installation integrates neatly into the Pavlina's roof. Per earthsafe solution provider/installer Graham Owen, the Shell Solar modules "have the best performance, strongest frames and junction boxes as well as the best warranty in the industry."

System Specifications

Installation completed:	<i>November, 2001</i>
System peak capacity:	<i>2.0 kW AC</i>
Total projected system electrical output per year:	<i>~3650 kWh</i>
PV surface area:	<i>230 sq. ft.</i>
Number and type of Shell Solar PV modules:	<i>32 Shell SP75s</i>
Mounting method:	<i>Flat with Fast Jacks at ~30 degree angle</i>
Other system components:	<i>2 inverters rated at 1 kW AC each</i>

Background

Since 1977 George and Jane Pavlina have lived in their southern California home located 1-1/2 miles from the ocean. The moderate ocean climate meant low electricity rates from the LADWP. But their motivation for "going solar" was environmental. A newspaper article about solar electricity made them realize that it was a viable solution for today's average homeowner.

About Shell Solar

Shell Solar has been involved in Solar PV for more than 25 years and is the number one supplier of solar modules and cells. Our expertise includes the manufacturing of silicon components, solar cells and solar modules right through to complete end-user products.

Shell Solar is part of the Shell Renewables core business group. Shell believes that renewable energy will one day constitute a major source of the world's energy demand. Therefore it makes perfect sense that Shell, an energy company, pursues solar and other forms of renewable energy.

Shell Solar's products are marketed worldwide through sales offices in the U.S., Germany, the Netherlands, Singapore, India, Sri Lanka, South Africa and the Philippines. Our vision is to be a leader in creating a sustainable energy future.

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