

Opening Up to Solar Energy

By Tina Steck

Southern Californians live in one of the best places on the planet to harness our sun's clean, renewable energy. Solar energy is one of the most efficient ways for private citizens to take part in the global effort to reduce carbon emissions. Hefty state rebates and newly updated federal tax credits are available to solar customers in California, and the City Council in Manhattan Beach has waived the \$600 permit fee for solar installations.

With all those incentives, only a small fraction of Manhattan Beach residents have made the commitment to go with solar energy. So, why not make the switch to solar energy for your home?

Answers to that burning question were offered on May 16 during the City's first solar homes tour when five solar-powered homes in Manhattan Beach opened their doors to the public. The City's Environmental Task Force presented the tour free of charge, inviting people to learn first-hand more about the costs and benefits of solar power in a residential setting. The tour coincided with another solar homes tour sponsored by the non-profit Environmental Priorities Network (EPN), which included seven solar-powered homes in the South Bay, two of which were also on the Manhattan Beach tour.

Lillian Light, the energetic senior citizen who has been called the "Environmental Lioness of the South Bay," played a key role in bringing about both solar home tours. Light, a Manhattan Beach resident, is a member of the Climate Action Subcommittee of the Environmental Task Force and also a founder and the current President of EPN, based in Palos Verdes. This is the fourth time that EPN has organized a South Bay solar homes tour, but the first time it has been set up to overlap with a Manhattan Beach tour.

"I want everyone to learn about going solar,"

said Light, who made herself available for questions at sites during the tour. She believes that the increase in popularity of solar homes tours parallels "a growing public awareness of the dangers of global warming and that we all have to do something about it."

"The news about global warming, which is caused by the burning of fossil fuels, is becoming more and more alarming," explained Light. Setting the stage for the solar homes tour, Light asked the ultimate question: "Why use fossil fuels when you have beautiful and renewable sunshine available as an energy source?"

One big reason that more people haven't switched to solar is that the up-front costs of installation of a solar roof facility can be discouraging. According to the EPN, the average PV solar system will cost \$20,000 to \$35,000. However the tour's solar homeowners all said the investment was worth it, especially since they felt that they were "doing the right thing" for the environment.

The grid-tied home solar facilities will eventually pay for themselves through greatly reduced electric bills. Some owners are taking advantage of net metering, which allows them to store utility credit for up to a year. When the solar-homeowners watch their SCE meters "spin backwards" it evokes a unique sense of satisfaction because it means that the home is using less electrical energy than the amount the solar panels are producing.

John York and Laurel Lee hired Solar Electric Systems to install a 4.5-kW system with 36 photovoltaic (PV) panels on their roof about three years ago. York looks at the solar facility as an attractive long-term investment since "it will be money in my pocket when I retire." York paid about \$23,000 out of pocket for his system, and now only pays about \$750 per year (about \$65 per month) to SCE for his electricity usage. And with rising electricity rates, this savings will only

increase, making his investment even more attractive. York no longer feels guilty about the energy he uses for his award-winning koi pond and waterfall in his backyard, or about the massive display of twinkling lights he decorates his house with during the holidays.

Initial out-of-pocket costs can be reduced through both a state rebate and a federal tax credit. The SCE rebate under the California Solar Initiative is about \$2.20 a watt; the rebate is expected to soon drop to around \$1.90 a watt, however. The better news is that the federal tax credit has just become much more attractive. Under the 2009 American Recovery and Reinvestment Act, consumers who install solar energy systems can receive a 30 percent federal tax credit, and the previous \$2,000 cap on the tax credit has been eliminated.

In January 2009, Solar City installed a 7.2-kW turnkey project for Scott and Rebecca Jarus, who took advantage of the no-cap 30 percent federal tax rebate. Scott Jarus was happy to show off to visitors his backward-turning meter, the 34 neatly aligned panels on his roof, and his most recent SCE bill of about \$25. The Jaruses paid about \$32,000 out of pocket, but expect a return on their investment in about six to seven years, which is sooner than they projected due to lower than expected SCE bills and soon-to-rise utility rates. Maintenance is easy on the roof panels; just "hosing them off" and keeping the debris away is all that is required, Jarus explained.

Bruce and Jane Letvin have lived in their Manhattan Beach home since the mid-1980s and after years of hesitating over costs, hired Ameco to install a 7.5-kW system with 36 SunPower PV panels about a year ago. Their annual electric costs were a little over \$750 (pre-solar bills hovered around \$300 a month) and they expect to recoup costs in about 10 years. Bruce Letvin said his inverter box,



A recent solar home tour in Manhattan Beach included the Jarus home. Picture is Scott Jarus on the roof of his home with a recently installed grid-tied 7.2-kW solar energy facility using 34 photovoltaic solar panels.

which takes the DC electrical power produced from the solar panels and transforms it into AC electrical power, showed that his system produced 11,000 kW, or 1.1 million watts, of power last year. Letvin, whose primary goal in going solar was to offset his carbon dioxide emissions, said his inverter box also showed that in one year he saved the environment exposure to 17,000 pounds of carbon dioxide by going solar.

The Letvins finally took the plunge into solar by working out green financing with SunPower, which helped them find a 15-year loan for the \$64,500 system. Even though their loan payment is more than the \$300 or so they used to spend on monthly SCE bills, once the loan is paid off, their power will be basically free. Bruce Letvin also received about \$17,000 in rebates through government incentives.

See Solar, page 15



metro.net

The fastest distance between two points.

Go Metro on the Harbor Transitway between the South Bay and Downtown LA.

Connect to Metro's Express lines on the Harbor Transitway. You'll breeze past the traffic and arrive relaxed and ready to go. Buses depart every few minutes all day long. There's free parking at five stations; you can also make an easy transfer from the Green Line.



To plan the trip that's best for you, visit metro.net. Go Metro.

© 2009 METRO. All rights reserved.