

Solar trend spreads

By LEN RICHARDSON

CALIFORNIA vineyards and wineries are bottling the sun along with their wine. Merryvale Vineyard's new Starmont production facility at Stanly Ranch in the Carneros region of Napa is one of the latest to add a solar electric system. Peju Winery, also in Napa, now produces approximately 35% of its electricity needs on an annual basis. Among other vineyards following the sun are Cooper Garrod, Paloma and V. Sattui.

Novato-based SolarCraft announced that it has completed installation of a 277-kilowatt solar power system at Merryvale. The photovoltaic system will provide 90% to 100% of the winery's electricity needs on an annual basis for the company's 60,000-square-foot building.

The new system will generate enough clean electricity each day to power 78 average homes. It also will spare the air nearly 473 tons of harmful greenhouse gases annually. Over the next 30 years, the air pollution saved will be equivalent

Key Points

- Napa Valley vineyards are turning to solar electricity.
- Merryvale's system will provide 90% of annual electric needs.
- Peju's electric bill was cut by \$1,813 a month the first year.

to one person driving more than 32 million miles. The system will pay for itself in about six years.

"Solar energy is good for the environment, and the reduction of greenhouse gases is good for the community," says Alex Gunst, of Pound Co., the construction project manager for Merryvale's new facility. "With rising energy costs and the generous rebates currently offered, going solar was an easy decision."

Clean energy cuts costs

Akeena Solar Inc., Los Gatos, designed and installed a 126-kW solar power system for Peju Winery. This system includes 720 Kyocera-175 solar panels and one SMA Sunny Boy Central 125-kW inverter.

With the system, Peju

Winery generates enough clean solar electricity each day to power 40 average homes. This solar power system will reduce the winery's annual expense for electric utilities by 35%. In addition, Peju received a solar energy rebate of about \$260,000 from the California Energy Commission, as well as approximately \$278,000 federal business solar tax credit.

Peak power-generating capability is 126,000 watts. This system provides about 157,610 kilowatt-hours per year, after taking into account various real-world efficiency losses.

Total costs of the solar power energy system were \$926,667, including all equipment, permits and installation on the roof. Net cost to the owner was \$387,970. The economic break-even point is 3.6 years.

Based on current commercial electric rates and an assumed 5% average annual rate increase, the system at Peju will produce \$1,867,788 in energy cost savings over its 30-year design life. For a cash purchase, this results in a 20.7% pretax rate of return.



SPARE THE AIR: The solar power system at Merryvale Vineyard's new Starmont production facility at Stanly Ranch will spare the air nearly 473 tons of harmful greenhouse gases every year.

"Being chosen by one of Napa Valley's top wineries to install this solar energy system was quite an honor," says Barry Cinnamon, chief executive officer of Akeena Solar.

Increases property value

In the case of Peju Winery, Ariana Peju, vice president at Peju Winery, says solar power is the right thing to do. It is good for the environment, and the community benefits from the decrease in greenhouse gas emissions. "With the financial incentives, it was an easy selec-

tion," Peju says.

According to the Appraisal Institute, energy saving improvements increase a property's value by \$20 for every \$1 reduction in annual energy usage.

In the case of Peju Winery, the value of the building was increased by \$435,180 in current dollars — more than the net cost of the solar energy system itself. On a cash basis, the winery's electric bill went down by \$1,813 per month in the first year.