

green living

Solar panels cool wines at Madroña Vineyards

By Roberta Long

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When Paul Bush decided to install solar panels at Madroña Vineyards, it was just good business.

“Farmers make decisions on what makes sense,” says Paul, who supplements his farming experience with an Economics degree from UC Davis. Paul and his wife, Maggie, are the second generation to run the family winery on Carson Road in Camino. His parents, Dick and Leslie Bush, were among the early farmers to plant grapes in El Dorado County during the wine renaissance that began in the 1960s and ’70s.

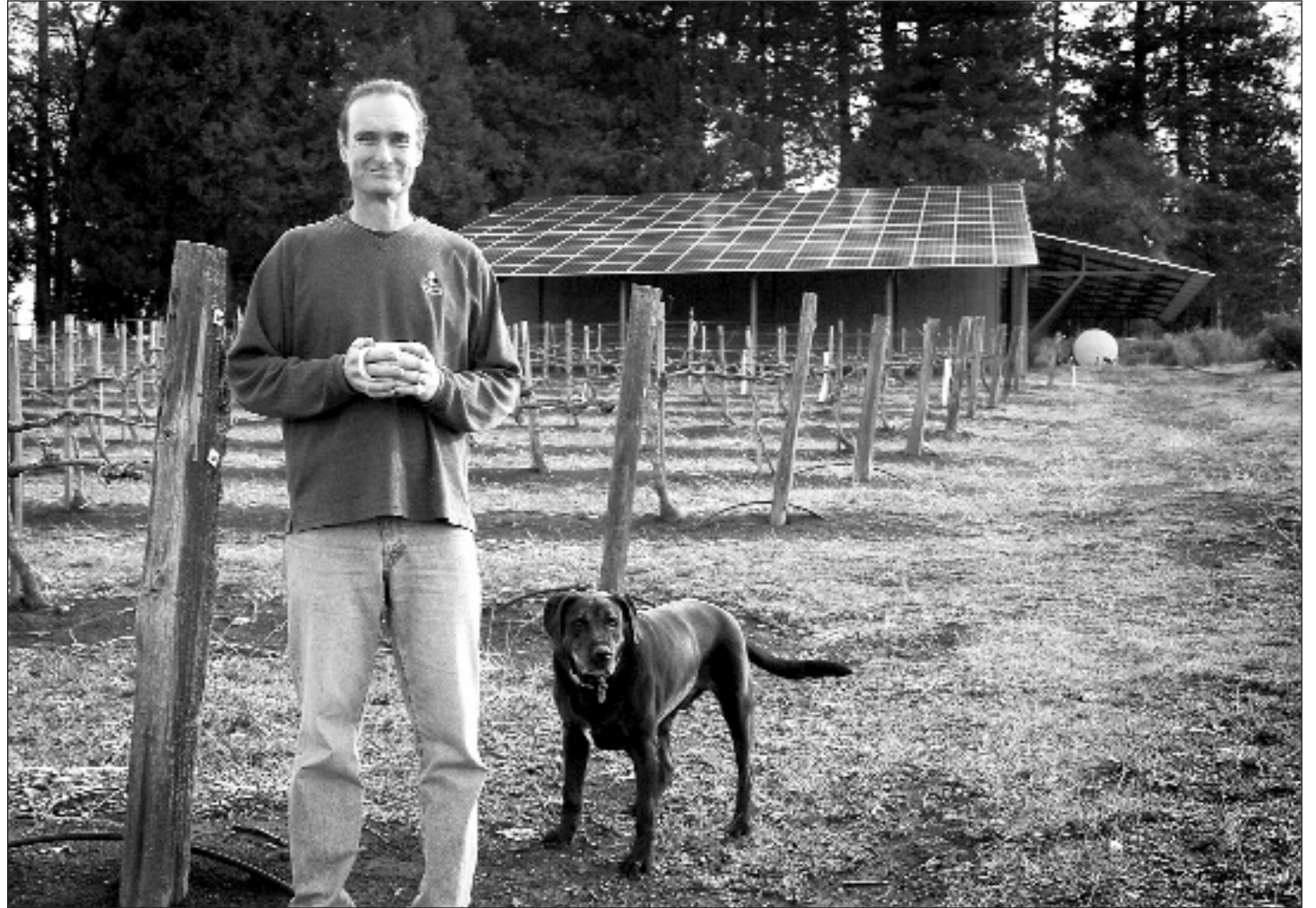
The Bush family decided to install solar panels at the winery about five years ago. It turned out to have triple benefits. The 36 kW system provides all the winery electricity most days of the year. “It doesn’t work when the panels are covered with snow. Then we have to pull electricity off the grid,” says Paul. “Our total cost for electricity from the grid was only \$800 last year.

“Because we need solar in the summer for cooling, we are able to use it when the days are longest and there is the most sunshine,” says Paul. As the wine is aging in barrels, the temperature is kept at 55 to 60 degrees. The solar panels collect the sun’s rays and protect the building,

The third advantage is more of a design feature. The panels drape over the winery’s southern and western exposures, protecting the building from storms. That feature cuts down on exterior maintenance and the need to repaint.

The solar industry has expanded in the four years since the Bushes installed their system, with many more local suppliers, but it is still not within everyone’s reach. It took a year and a-half for the Bushes to go through the system of rebates and do all the paperwork.

“Not all farms have the ability to cover the initial capital costs,” says Paul. “Our system will be paid for in 14 years. It has a guaranteed life of 25 years, but



PAUL BUSH and his black Labrador, Jake, survey the vineyard in front of his solar powered winery.

Democrat photo by Megan Jeremica

40 years is realistic. You can’t store the electricity that you don’t use and PG&E doesn’t pay for overages, so there is no offset.”

When the Bushes decided to look into solar, it was one of many “green tools” they employ. They use the stems out of the crushers in the roadways. The stems efficiently collect silt and prevent road erosion. “We had to petition the California government to use the stems because they were classified as industrial waste. We consider them a resource,” says Paul. “The seeds are used as fertilizers. These

are good business decisions and good for the environment.”

Visitors to Madroña Winery will notice the owl boxes that have been placed criss-cross in the surrounding vineyard. They are there to attract barn owls as an alternative to using poisons. “Owls won’t feed under their own box,” says Paul.

When they fenced the 35-acre vineyard in Pleasant Valley, the Bushes created a 500-foot swath for the local deer herd. “If we had tried to fence them out, the deer would have figured out how to get

in,” says Paul. The arrangement saves the costs of fence repairs and plant damage. “It’s better to be smart up front,” says Paul.

Paul says he never expected to become a farmer, but after college he traveled in Europe and Scandinavia and now says he loves living in El Dorado County. “We’re closer to the land and the quality of life you can get being part of a community is great. This is our future. We want it to be a great place in 20, 40, 60 years.”