

DOWN TO EARTH

Sustainable Winegrowing in California

Winery Innovates with Solar Power Microgrid

March 2017



Baggett (above) had no out-of-pocket cost for microgrid installation.



CALIFORNIA
SUSTAINABLE WINEGROWING
ALLIANCE

Down to Earth: a monthly newsletter celebrating the commitment of California vintners and growers to sustainable winegrowing and winemaking. This newsletter profiles the best practices of vintners and growers and shares news in sustainable winegrowing.

Alpha Omega proprietor Robin Baggett planted his first winegrapes almost three decades ago in San Luis Obispo County on California's Central Coast. A lawyer by day but a cowboy at heart, Baggett purchased a historic ranch in Edna Valley in 1988. It didn't take him long to realize that growing Chardonnay and Pinot Noir on some of the land made more sense than running cattle, and he, along with a partner, began accumulating prime acreage for vineyards. In 1998, Baggett and his partner launched Tolosa winery in San Luis Obispo. Eight years later, Baggett and his wife, Michelle, debuted their new winery in Napa Valley, Alpha Omega.

An early adopter of solar power at Tolosa, Baggett pioneered a microgrid system at Alpha Omega that launched last year. Together, the two wineries generate more than 1 million kilowatt hours of solar energy annually.

What's a microgrid and how does it compare to conventional solar panels?

A microgrid is two systems really: a classic solar system and a battery system. The two work together. The battery system acts like a backup generator. It will provide the winery's essential needs for about three days. It uses saltwater batteries, the "cleanest" type of battery you can get. There's not one toxic or negative thing in them, so they're not like other batteries. The only negative is that they're big. We house them in two shipping containers.

The electricity we generate can go back and forth between the systems. What the solar panels produce can go into the batteries or onto the grid. So the batteries are more than an emergency source; they're a system that we can use at night. And if the grid goes down, I've got a free generator for three days. This whole system cost me nothing to install.

Nothing? How did you manage that?

The cost was roughly \$2 million, but when we started talking to our bank, Farm Credit West, we learned that they have a leasing company that would take our tax credits for solar and give us a negative-interest lease in return. We had no out-of-pocket costs to install the system. The bank fronted all the money, and when it was completed, I signed a seven-year lease. Now I

(continued on back)

make my monthly energy payments to the bank rather than to PG&E and they are less than what they used to be. At the end of seven years, I anticipate that we will have saved around \$200,000. The equipment has a 30-year warranty and may last longer, so for at least two-thirds of its life, I'm going to have free power. I keep trying to tell people, it's the best deal going.

We have five solar arrays, and each one is designed to provide shade. Two of them cover customer parking, one is over employee parking, another is over the crush pad and another one covers some of our agricultural equipment. We didn't tear out any vines. There was no net loss of land. Zero.



Alpha Omega solar panels shade the crush pad, parking lots and equipment.

You also installed several Tesla charging stations at the winery. Are those only for Tesla vehicles? And do drivers pay for the charge?

We have four stations. One is a universal charging station that will fit almost any electric or hybrid vehicle. The other three are for Teslas only. They can almost fully charge the vehicle in an hour, while people visit the winery. And if you have a Tesla and you're in Napa Valley, the car will tell you where the nearest charging stations are. The charge is free, and it doesn't cost us anything because the power is coming from our solar array.

You've launched a ride-share program for winery employees. What are the keys to making this work? Is it having an impact?

Honestly, not as much as we'd like. It's a work in progress. We've come to the conclusion that it's going to require cash incentives, and we're fine with that. Now we're trying to figure out the right cash incentives. Drivers get more cash for more riders, but we're also thinking that we want to incentivize the riders. Traffic in Napa Valley is a real issue, and we need to do our part. We have to get more people into each car. It's part of being a good neighbor and it's the right thing to do. I want to see a lot of empty spaces in our employee parking lot.

Resources & Publications

Celebrate Down to Earth Month:

April is California Wines: Down to Earth Month and an ideal time to check out earth-friendly California wines made with sustainable winegrowing and winemaking practices.

www.discovercaliforniawines.com/d2e/

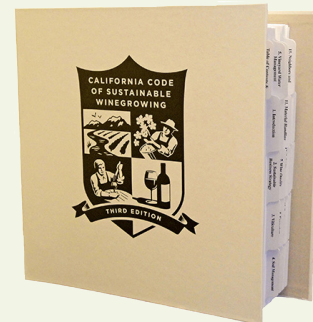


CSWA Year in Review: CSWA had another busy year in 2016. Look through our Year in Review for an overview of our sustainability report, updates to CERTIFIED SUSTAINABLE, new videos on certification, trade survey results and more. www.sustainable-winegrowing.org/CSWA-publications.php



California Code of Sustainable Winegrowing Workbook: Download individual chapters or the entire workbook to learn more about sustainability in your vineyard or winery.

www.sustainablewinegrowing.org/swpworkbook.php



Wine Institute
425 Market Street, Suite 1000
San Francisco, CA 94105