



Tim Peters installed a 22.6 kW photovoltaic system to supply some of the electricity for his tropical plant nursery located on 44 acres in Silverton. He used financial incentives from the Oregon Department of Energy and Energy Trust of Oregon.
Photo Credit: Ann Grim, Oregon Department of Energy



Tim Peters, owner of Raintree Tropical in Silverton, turned his passion for tropical plants into a specialized business.
Photo Credit: Ann Grim, Oregon Department of Energy

Sun Fuels Oregon Farms, Nurseries in Many Ways

By Ann Grim and Christopher Dymond, *Oregon Department of Energy*

Oregon farm and nursery owners rely on the sun for their livelihood. Many are now turning to solar energy to do more than just making their crops grow.

Raintree Tropical – Silverton

Tim Peters has heard the naysayers:

Palm trees can't survive in Oregon. It's too cold.

Solar won't work in Oregon. It rains all the time!

But, seeing is believing. A visit to Peters' tropical nursery business in Silverton, Oregon provides the visual proof that palm trees and solar panels do belong in Oregon.

Raintree Tropical, Tim Peters' wholesale/retail nursery business in Silverton, is making a name for itself growing palms and other tropical plants in the heart of the Willamette Valley. Peters has hardy palms that can survive to 8°F. Oregon's minimum low temperature average has been gradually increasing with global warming, according to Peters, and now averages 16°F to 20°F.

Peters uses solar energy extensively for his tropical plant nursery business. In 2006, he hired Summers Solar System to install a 22.6 kW photovoltaic system on his 44 acres where his home and business are located near the Oregon Gardens. This year, Peters is installing a hydronic solar space heating system in a greenhouse that must be maintained at 45°F, with a portion that must be a balmy 62°F. The system consists of a 1,500 gallon storage tank, four heaters and 270 square feet of solar collectors.

All together, these features will reduce his energy needs by nearly 37,000 kWh per year. "The honest truth is that it isn't cheap," Peters said.

But, there were some financial incentives that made it worthwhile. He received a 35 percent Business Energy Tax Credit from the Oregon Department of Energy for his investment in renewable energy for his business, and a cash incentive from the Energy Trust of Oregon (ETO). Federal tax incentives are also now available, but were not claimed for the PV system.

Tim Peters' love for tropical plants began in his youth. His father, a mission doctor, moved the family to Taiwan for three years when Peters was in grade school in the 60s.

"I just got to love tropical plants," he said. After following his father into a medical career, Peters settled in Silverton and began his family practice at Northwest Family Medicine where his wife, Sarah, is also an M.D.

When the Peters settled on their current property, he already had a thriving nursery business started with plans to slowly expand.

"I want to enjoy it," Peters said. "And, I don't want to make it something I can't manage." Currently, he has one full-time employee and hires a couple of local teens in the summer.

If you think solar and palm trees belong in California or Florida, visit Raintree Tropical and see for yourself. Raintree Tropical is located at 3408 Cascade Hwy. NE. Retail hours are Tuesday, Wednesday, Friday and Saturday 10 a.m. to 5 p.m. www.rain-treetropical-cal.com

Gathering Together Farm – Philomath

John Eveland and Sally Brewer own and operate the oldest organic farm in the Willamette Valley. Established in 1987, it has become a model for sustainable business and sustainability.

The 35-acre farm employs more than 50 people during the peak season. The strictly organic farm is diverse. They grow 50 different vegetables and more than 100 varieties of seed.

A few years ago, Eveland decided to replace the farm's cheap, old water heater with either an on-demand water heater or a solar water heater. "I was going to jury-rig a cheap, hack home-job," said Eveland. "But, my plumber friend, John Cook, convinced me to do something that would offer lasting performance instead."



The solar electric systems at Raintree Tropical is comprised of 132 modules and is expected to save 25,000kW of electricity per year. Photo credit: Ann Grim, Oregon Department of Energy.

The system he had installed was a large anti-freeze system designed to preheat a new ultra-efficient electric water heater. The water is used by the kitchen staff at their farm stand. In addition to retail produce sales, the staff also serves luncheons and occasional fancy wine dinners and Sunday brunches. The system is expected to reduce their water heating bill by approximately \$400 per year. A key to the system's excellent performance is that the kitchen staff uses the most hot water during the summer when it can

produce the most energy.

"The installation very easy," Eveland said. "The check was a bit painful, but I couldn't have done such a good job." Eveland hired a contractor from the Oregon Department of Energy's list of tax-credit certified solar technicians. He received tax credits from the state and federal government. Though it will take time for system costs to be recovered, customers of Gathering Together Farm can already see his commitment to renewable energy. ■