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Solar Panels Eliminate Energy Costs for Family Aquaculture Business

[Santiam Valley Ranch](#) began selling warm-water fish to stock ponds in 1982. This small, family-owned business southeast of Salem, Oregon, paid approximately \$3,000 in energy costs from their farm meter per year, primarily to maintain the biofilters, pumps, and the ozone and ultraviolet systems for their fish habitat. While owners Kathy Bridges and Ken Dunder wanted to expand their business, they first needed to reduce their operating expenses. They discovered they could do exactly that while also reducing their carbon footprint by better utilizing the natural resources available on their property.

In May 2012, they purchased a 20,400-watt solar photovoltaic (PV) system with assistance from a \$10,351 Rural Energy for America Program (REAP) grant awarded by USDA Rural Development.

With the expertise of contractor Solar Ki, LLC, the installation of their solar PV system on two barn roofs was completed in April 2013, after both structures were reinforced and the 70-year-old electrical system was upgraded. They then established a net metering agreement with Portland General Electric to allow excess energy to be returned to the grid, giving Santiam Valley Ranch a credit they can draw on at night or at other times of limited sunlight.

“All of this would not have been possible without the funding provided by USDA and others,” said Bridges.

In May 2013, the Santiam Valley Ranch aquaculture business did not receive an energy bill for the first time in its 31 years of operation. A year later, they were presented with the Mid-Willamette Valley Green Award as the 2014 Small Sustainable Business of the Year.

Moving forward, they hope to use their energy cost savings to expand their business with an indoor fish holding system and electric vehicles powered by their excess renewable energy.

“It’s all about using resources wisely. If people want to make a change, that change must begin with each of us,” Bridges said. “We are both very happy,” he added. “I smile every time I walk past those solar panels.”



Ben Metzger with Metzger Green Build (Solar Ki partner) installing the solar PV system.

Obligation Amount: \$10,351 grant

Date of Obligation: May 2012

Congressional District: Representative Schrader, OR-5, District; Senators Wyden and Merkley

Partners: Oregon Department of Energy, Energy Trust of Oregon

Demographics: Turner, Oregon

Impact: Eliminated farm energy bill in first month of operation; created an energy independent business with significantly reduced carbon emissions; and made a future business expansion financially feasible.