

Santiam Valley Ranch Solar Photovoltaic (PV) Project, 2013 Residential Kathy Bridges & Ken Dunder



*Installation of Aurora inverter,
May 15, 2013*

In June of 2012, we entered into a 20 year contract with SolarCity to install a residential photovoltaic system on our home. By August 29, 2011, SolarCity provided us with a 13 page report detailing the architectural and electrical design of the system, uniquely fitted to our home. Based upon their recommendation, we removed two large trees in the back yard on September 27, 2012.

The system was installed in two days on May 14th and 15th, 2013. Marion County inspected the system on May 16th. The system was hooked up and became operational by Portland General Electric on May 29th, 2013.



Removal of large fir tree and other trees facing south side of house, September 27, 2012..

The complete engineering designs provided by SolarCity included: schematic aerial view of the home with projected 4.8 kW roof mounted PV system noted; vicinity map, abbreviations, electrical notes and legend; electrical drawings; uplift calculations; structural

mounting schematic; electrical calculations; label descriptions; information on inverter (Aurora); information on panels (Yingli Solar, YGE240 series); and Certificate of Compliance. SolarCity designed and installed the system, and work directly with Portland General Electric and Marion County to obtain net-metering agreements and permits.



Installation of grid-tied system, May 14, 2013.

Converting to solar will not decrease, to any significant extent, our monthly electrical bill cost. In this case, SolarCity is accessing tax credits and rebates to install the system on our home. We pay a lease rate of \$41.77 per month for the system. Incentives afforded to SolarCity include Energy Trust of Oregon, 30% federal tax credit, and depreciation of the system. In exchange, at zero cost to us, we converted nearly one-fourth of

our historical energy usage from hydropower and coal to solar.



Complete installation of solar panels, May 15, 2013.

Calculations based on our residential use of energy in 2011 was 24,295 kW for the year. The system installed by SolarCity will provide approximately 22% of energy through the PV system. Thus, it is projected that our bill from PGE will be reduced by approximately 22%.

In the event PGE increases its rate for power, the 22% will not be affected by the increase in fees. SolarCity also provides insurance and Warranty for the system, is responsible for repairs and maintenance, and provides internet monitoring of the system.



For further information about converting your home to a renewable energy source, one contact is SolarCity. We worked with Grant Eggleston, Solar Energy Consultant at Paramount Energy Solutions, 971-409-3063 or 877-290-9991, and Sean McMullen at Solar City, 650-963-5646.

Electrical meter base is located in the front of the house. The solar system was installed using conduit located under the roof eaves and which spanned from the meter base to the inverter housed in the garage.

Electrical system was installed May 14 and 15, 2013.