Figueroa Case Study

About two years after installing a solar hot water system and solar photovoltaic array, Pedro Figueroa has cut his electricity bills in half.

Figueroa used Solar-Ray, Inc. to design a 5,040-watt, 28-panel solar photovoltaic system. It is capable of generating electricity to power a portion of his home. The system that he installed used solar panels made of silicon to convert the suns' light into electricity.

Figueroa produces on average of 19.5 kilowatt-hours per day, with some days higher and some lower. The system that was installed is a grid tie system which is attached to Progress Energy's grid. Progress Energy pays Figueroa about 34 cents for each kilowatt-hour he sells back to the company, although he pays 11 cents per kilowatt-hour.

Figueroa expects to start using net metering in the fall, which means he will receive one kilowatt-hour from the power company for each kilowatt-hour he generates.

Folsom Services, the electrical contractor on the project, placed the 28-panel array on the back of Figueroa's house, which faces south. The array requires little to no maintenance and carries up to a 25 year warranty.

Figueroa finds that the panels blend in with the roof and do not detract from the home's appearance, and says if anything it shows the community that he is doing something to help the environment.

Location: Orlando, FL

Date Installed: December 2006

PV System Designer: Solar-Ray, Inc.

Contact: Michael Brown

System Size: 5kW

Module: 28 Evergreen Solar Modules

Inverter: Sunny Boy Solar Inverter

Overall Cost: $32,000 (PV System Only)

Rebates/Incentives: $22,000

Cost to Customer: $14,000

Estimated kWh per year: 7117.5 kWh

Estimated $ Saved per year: $1,734

Estimated rate of ROI: 8 years