Residential Solar Electric Project Case Study

Site Information

Site Name: Burch Residence

City: Bridge City, TX

Solar System Description

Renewable Energy Systems:
9.66 KW DC Solar Electric System,

Installer: Alternative Power Solutions

Date Installed: April 2011

System Cost: $48,800

Approximate Energy Provided: Solar Electric – 1070 KWh per month

Approximate Cost Savings at 11 cents/kwh: The solar PV systems saves the home owner approximately $117/month or 54% off this homes standard electric bill. This system qualified the homeowner for a $19,300 rebate from his utility company, a $8,870 tax credit, increased the property value by $28,250, and will produce over $96,300 worth of solar energy during its lifetime.

Environmental Benefits:
This system will also save the environment over 481,000 lbs of co^2 emissions over 30 years.

Description of Installation:
The grid-tie 9.66 KW Solar PV system consists of 46 Suntech 210 Watt panels which are south facing. The panels are attached to the rafters of the asphalt shingled roof. This system uses 2 PV Power 5200 grid tie inverters to make the power conversion from DC to AC electricity.