Residential Solar Electric Project Case Study

Site Information

Site Name: Brennan Residence

City: Sanger, TX

Solar System Description

Renewable Energy Systems:
5.52 KW DC Solar Electric System,

Installer: Alternative Power Solutions

Date Installed: November 2010

System Cost: $33,000

Approximate Energy Provided: Solar Electric – 552 KWh per month

Approximate Cost Savings at 12 cents/kwh: The solar PV systems saves the home owner approximately $66/month or 37% off this homes standard electric bill. This system qualified the homeowner for a $9,900 tax credit, a rebate from his utility company, increase the property value by $15,900, and will produce over $54,200 worth of solar energy during its lifetime.

Environmental Benefits:
This system will also save the environment over 248,000 lbs of co^2 emissions over 30 years.

Description of Installation:
The grid-tie 5.52 KW Solar PV system consists of 24 Schuco 230 Watt panels which are west facing. The panels are attached to the rafters of the asphalt shingled roof. This system uses 24 Enphase Micro grid tie inverters to make the power conversion from DC to AC electricity at the panel itself. The micro-inverters reduce the standard current loss in the solar system.