



Residential Solar Electric Project Case Study

Site Information

Site Name: Denson Residence

City: Arlington, TX

Solar System Description

Renewable Energy Systems:
4.9 KW DC Solar Electric System

Installer: Alternative Power Solutions

Date Installed: August 2009

System Cost (at todays prices): \$29,400

Approximate Energy Provided: Solar Electric – 571 KWh per month

Approximate Cost Savings at 12 cents/kwh: The solar PV systems saves the home owner approximately \$68/month or 35% off this homes standard electric bill. This system qualified the homeowner for a \$12,500 rebate from her utility company, a \$14,000 tax credit, increased the property value by \$16,300, and will produce over \$79,000 worth of solar energy during its lifetime.

Environmental Benefits:

This system will also save the environment over 250,000 lbs of co² emissions over 30 years.

Description of Installation:

The grid-tie 4.9 KW Solar PV system consists of 28 Suntech 175 Watt panels which are south facing. The panels are attached to the rafters of the asphalt shingled roof. This system uses 1 SMA 4000 and 1 SMA 3000 grid tie inverters to make the power conversion from DC to AC electricity.

