



## Residential Solar Electric Project Case Study

### Site Information

**Site Name:** Eapen Residence

**City:** Houston TX

### Solar System Description

**Renewable Energy System:**  
3.85 KW DC Solar Electric System

25 Watt Attic Breeze Solar Attic Fan

**Installer:** Alternative Power Solutions

**Date Installed:** June 2009

**System Cost (at todays cost):** \$23,100

**Approximate Energy Provided:** Solar Electric – 385 KWh per month

**Approximate Cost Savings at 15 cents/kwh:** Approximately \$47/month or 20% of the homes energy consumption. This system qualified the homeowner for a \$9,700 tax credit, increase the property value by \$11,000, and will produce over \$54,000 worth of solar energy during its lifetime.

### **Description of Installation:**

This grid-tied 3.85 KW Solar PV system consists of 22 Suntech 175 Watt panels which are southern facing. The panels are attached to the composite shingle roof. This system uses an SMA 4000 grid tie inverter to make the power conversion from DC to AC.

An Attic Breeze 25 Watt solar attic fan was installed to reduce the attic temperature and AC loads for the home.

