Choice Mechanical INCORPORATED

GEOTHERMAL & SOLAR

5.37kW Solar PV System
3 Ton Geothermal System

543 Bonerwood Dr Case Study

System Specifications:

Solar Size:	5.37kW
Geothermal Size:	3 Ton
System Price:	$50,000
Federal Tax Credit: (%30 of incurred cost at installation)	$15,000
*TVA:	$1,000
Total Net Cost:	**$34,000**

*All new Generation Partners also receive a $1000 incentive to help offsetstart-up costs.

Savings & Benefits:

First-year Utility Credit:	$1,543
Average Monthly Utility Savings: over 25-year expected life of system	$339
Average Annual Utility Savings: over 25-year expected life of system	$4,070
25-year Utility Savings: CO_2 Saved over 25-year system life	$101,769

*Figures are based on current energy cost escalation rates.

Results:

First Year of Electrical Bills:	Credit of $234
Increased Home Value:	$23,000
Annual Geothermal Carbon Offset:	5.63 Tons
Annual Solar Carbon Offset:	5.55 Tons

Bonerwood Drive home demonstrates energy efficiency and solar energy.

One year later, not only is this homeowner producing their own energy, but thanks to replacing less efficient gas mechanical equipment with a high efficiency geothermal unit, the homeowner has also dramitically decreased their total energy consumption by approxiamately 34%. The net result is having NES print them a check for $234 at the end of the first year.

The heating and cooling system was replaced with a geothermal system which included 2 300 foot vertical bore holes and a 3 ton Florida Heat Pump variable speed package unit.

The solar electric system consists of 24 Sharp 224 watt solar modules and one SMA Sunny Boy 5000US inverter. The system is monitored by a Sunny Webbox which allows the homeowner to keep track of their production and alerts the installer, Choice Mechanical, of any issues related to the system. The system is expected to generate approxiamately 7,400 kWh of energy per year.

Residential Renewable Energy Tax Credits

Consumers who install renewable energy systems systems can receive a 30% tax credit for systems placed in service before December 31, 2016