



SIMPLEENERGYWORKS

Harnessing the Sun for a Better Earth and
Brighter Tomorrow



Tennessee Solar Energy System Case Studies

Tennessee Solar System Case Studies by
Simple Energy Works



Best Friends Animal Hospital

Anthony Warlick
Crossville, TN



9.2 kW Photovoltaic System

The animal hospital was looking for a way to offset its electrical bills (which are significant in the summertime because of AC expenses). They decided upon a 9.2 kW [photovoltaic solar system](#) on their shingle roof. The system is now offsetting over 30% of the electrical usage during the summer months.

- 40 Schott 230 watt modules
- Enphase M190 microinverters
- Tennessee Valley Authority Generation Partners Program
- A great south facing roof on the side of the Veterinary Hospital. The modules are set in a triangular array.
- Estimated annual production of 12,659 kwh per year.
- In July and August 2011 the average offsetting of the electrical bill is \$325 per month.
- Applied for and received the USDA Reap grant
- Applied for and received the Tennessee Solar Institute grant
- Eligible for the 30% Federal Tax credit
- Eligible for the 100% bonus depreciation in year one (for capital solar investments)
- Payback on this complete system is under 5 years



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Camp Nakanawa

Pepe and Ann Peron
Rural Tennessee



13.34 kW PV Array using Sharp 230w Modules & Enphase Microinverters

As Directors for a camp in middle Tennessee it made great sense for Pepe and Anne to explore clean energy generation. Their months of highest electrical usage are the summer, when a solar photovoltaic system would generate the most electricity.

They also wanted to show their campers that they were taking their responsibility to take care of the earth quite seriously.

- After looking over the potential sites available on their camp we decided on mounting the PV system on a 50 year old barn with good southern exposure. The array faces due south and instantly became a favorite of the maintenance men who are constantly checking to see how much the array is currently generating.
- The camp was able to take advantage of the USDA Rural Energy for America 25% Grant and also the 30% 1603 US Treasury Grant.
- They will be able to use bonus accelerated depreciation on the whole cost basis of the system.
- The system will “pay for itself” in around 6 years. From then on they will be enjoying “FREE” energy for the life of the system (warranty for 25 years but useful life may be closer to 40 years).

Jean Cheely

Crossville, TN



1.84 kW Ground Mounted PV Array

Jean was looking for a way to use renewable energy and cut her electrical expenses. She purchased a Simple Energy Works [solar power kit](#) and installed the system herself.

- The system is set up with TVA’s generation partners program and will pay her \$.12 above retail for all of the electricity that the system produces for the next 10 years.
- The system is producing over \$45 per month in revenue (which goes a long way toward offsetting her electric bill).



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Ted and Denise Polczynski

Crossville, TN



1.64 kW Roof Mounted PV Array

Ted and Denise bought a [solar system kit](#) from Simple Energy Works and did the installation on a weekend with the help of some friends. They hired a local electrician to do the final connection to the electrical grid.

- The system is installed on a shingled roof with good Southern exposure.
- They are planning on expanding the system to a 4.9kW system in the near future (and they are planning on doing the addition to the system themselves).
- They are participants in the TVA generation partners program and have locked in a contract with TVA for the next 10 years at \$.12 above retail per kwh for all energy produced by their PV system.
- You can view the actual real-time energy production of their system online at: <http://enlighten.enphaseenergy.com/public/systems/Wjgg11567>

At this link you can see the complete energy production of the PV system from the moment that it was hooked up (you have access to the complete history). Feel free to explore and see how Enphase Enlighten allows you to track the energy production.

Dean & Betty Clement

Fairfield Glade, TN



2.7 kW PV System

Upon retirement and relocation to Fairfield Glade, TN, Dean and Betty decided that they wanted to produce a portion of their electricity from clean energy sources (rather than from the coal generators). Because they lived in a highly restrictive community they had to get special permission from the ACC (architectural committee) for the placement of the solar modules.

Once the plans were presented the committee was happy to approve the solar panels in their community, and they elected to use Simple Energy Works as their [solar system installer in Tennessee](#).

- The system is on the rear of their house (facing due south) and overlooks their beautiful deck area.
- Because of the significant number of trees in the area, the [Enphase Microinverters](#) are very beneficial at pulling as much energy as possible from the solar modules.
- Betty said. "For such a small system- it is generating a lot of money!" The system is generating over \$65 per month toward offsetting their electrical bill.



About Simple Energy Works



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Simple Energy Works sells complete [solar photovoltaic custom kits](#) to residential and commercial customers online. We also design, sell and install complete residential and commercial [photovoltaic solar systems in Tennessee](#), including the areas of Crossville, Knoxville, Chattanooga, Cumberland County, and many more TN cities! Additionally, we offer the [Current Cost EnviR Whole House Energy Monitors](#) online through our website and on our Amazon store. Randy Velker, Co-Owner, provides services and resources on the [incentives, finance and funding of solar systems](#), both commercial and residential.

Connect with Us



Randy Velker



Ed Bauer