



The Smyrna Firestone is the first Firestone store in the country with a solar array. Commissioned on June 16, 2009, the system will generate more than \$2,300 annually, as a TVA Generation Partner.

## The Array

LightWave Solar Electric, LLC designed and installed this 8.1 kW photovoltaic solar system for the Firestone store in Smyrna, Tennessee. The array consists of 36 SunPower 225 watt mono-crystalline silicone panels and one SMA Sunny Boy 7000 watt inverter. The panels carry a 25-year limited warranty with a life-expectancy of 40-50 years, and the inverter carries a 10-year warranty with a life-expectancy of 20 years. The system performance is monitored and managed in real-time via the SunPower online monitoring system, which can be viewed inside this Firestone store.

With 490 square-feet of high capacity solar panels, the array produces approximately 8.1 kW peak power per day, generating 10,625 kWh per year. This production will offset the energy costs of Firestone by at least \$2,330 annually, based on current utility rates. In addition, Firestone was granted a TN Clean Energy Technology (TN-CET) grant, a Federal Energy Investment Tax Credit (ITC), and federal depreciation benefits (MACRS), all providing substantial financial incentives to reduce the cost of the system.

## LightWave Solar Electric, LLC

With over 30 years of combined experience, LightWave Solar Electric, LLC brings state of the art technology and trusted and experienced services to homes, businesses, schools, and industrial and federal facilities across the state.

Employing four NABCEP-certified Solar PV Installers™ (North American Board of Certified Energy Practitioners) and holding a TN State Electrical Contracting License, LightWave Solar Electric is a leader in TN's solar industry. LightWave Solar Electric's award winning photovoltaic systems qualify for state and federal incentive programs and are making a difference in our communities every day.



### Specifications

System Size:	8.1 kW peak
Location:	Smyrna, TN
Solar Module:	SunPower 225
Inverter:	7000 W Sunny Boy
Mounting System:	Custom
Est. Annual kWh:	10,625 kWh

### Economic Incentives

- TVA's Generation Partner Energy Credit (22 cents per kWh)
- TN-CET State Grant (40% Total Cost)
- Federal Tax Credit (30% Total Cost)
- Federal Accelerated Depreciation

### Environmental Impact

Over the 25-year warranted panel life, system will offset emissions of:

- Carbon Dioxide (CO<sub>2</sub>): 359,400 lbs
- Nitrous Oxide (NO<sub>x</sub>): 540 lbs
- Sulfur Dioxide (SO<sub>2</sub>): 1,160 lbs

Equivalent to planting 50 acres of trees!