



Commissioned on June 25, 2009, the 14.7 kW solar PV system atop Five Points is the 2nd largest solar installation in the Middle Tennessee Electric Membership Corporation (MTEMC) district.

The Array

LightWave Solar Electric, LLC designed and installed this 14.7 kW photovoltaic solar electric system for Five Points Properties in Franklin, TN. The array consists of 64 SunPower 230 watt monocrystalline silicone photovoltaic panels as well as two SMA Sunny Boy 7000 watt inverters. The panels carry a 25-year limited warranty with a life-expectancy of 40-50 years, and the inverters carry a 10-year warranty with a life-expectancy of 15-20 years. The system performance is monitored and managed in real-time via the SunPower online monitoring system, which can be viewed inside the Starbucks at Five Points.

With 847 square-feet of high capacity solar panels, the array produces approximately 14.7 kW peak power per day, generating 17,500 kWh per year. This production will offset the energy costs of Five Points Properties by at least \$3,850 annually, based on current utility rates. In addition, Five Point Properties was granted a TN Clean Energy Technology (TN-CET) grant, a Federal Energy Investment Tax Credit (ITC), and federal depreciation benefits (MACRS), which all told, covers approximately 85% of the cost of the system.

LightWave Solar Electric, LLC

With over 30 years of experience in the field, 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:	14.7 kW peak
Location:	Franklin, TN
Solar Module:	SunPower 230
Inverter:	7000 W Sunny Boy
Mounting System:	Custom
Est. Annual kWh:	17,500 kWh

Economic Incentives

- TVA's Generation Partners 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 (CO₂): 661,296 lbs
- Nitrous Oxide (NO_x): 994 lbs
- Sulfur Dioxide (SO₂): 3,054 lbs

Equivalent to planting 96 acres of trees!

