

Apollo Middle School Nashville, Tennessee



Commissioned on June 23, 2009, Apollo's 25.6 kW array is the largest PV system in the Nashville Electric Service (NES) district. It is the first PV system to be installed on a Metro Nashville Public School.

The Array

LightWave Solar Electric, LLC designed and installed this 25.6 kW (kilo-watt) photovoltaic solar electric system for Apollo Middle School's recently completed addition in Nashville, Tennessee. Installed on the most energy-efficient classroom wing in Metro Nashville Schools, the array will provide 100% of the energy needed to heat and cool Apollo's 22,255 square-foot 16 classroom addition.

The array consists of 84 SunPower 305 watt crystalline silicone photovoltaic panels with a 40-50 year life-expectancy and a SatCon 30kW 3 phase Inverter with a 20 year life-expectancy. The array will generate approximately 25 kW peak power per day, coming to 32,250 kWh (kilo-watt-hours) per year. This solar production is guaranteed for the first three years and will be credited to Apollo's electrical account at a rate of 22 cents per kWh. This will save Apollo Middle School nearly \$7,100 a year in energy costs, based on current utility rates.

LightWave Solar Electric, LLC

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

As a leader in Tennessee's solar industry, with four NABCEP-certified Solar PV Installers™ and a State Electrical Contracting License, 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

Location:	Apollo Middle School
System Size:	25.6 kW
Solar Panel:	SunPower 305
Inverters:	SatCon 30kw 3 phase
Mounting:	Custom
Annual kWh:	32,250 kWh

Economic Incentives

- TVA's Generation Partners Credit:
 - Base rate plus 12 cents per kWh
 - \$7,100/year at current rate
- TVA's \$1000 sign-on bonus

Environmental Impact

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

- Carbon Dioxide (CO₂); 1,150,080 lbs.
- Nitrous Oxide (NO_x); 1,728 lbs.
- Sulfur Dioxide (SO₂); 5,312 lbs.

Equivalent to planting 160 acres of trees!

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