



Martins Creek Elementary School Case Study

Third Largest School PV System in the United States

“The benefits this solar farm has had, and will continue to have, for the school and the local area are tremendous.”

- Jeffrey Burkett, President



Location: Murphy, North Carolina

Utility: Tennessee Valley Authority

System Size: 1MW

Footprint: 5 acres

Scope of Work: Development, EPC, O&M, & Monitoring System

Construction Start Date: January 2011

Construction Completion Date: March 2011

Modules: Canadian Solar CS6P-P

Inverters: Advanced Energy 260kW

Monitoring System: ESA Renewables

Annual output: 1.3 million kWh

Annual CO₂ avoided: 936 tons

ESA Renewables, LLC (ESA) installed a 1MW solar plant in Murphy, North Carolina. The Martins Creek system is situated 500 yards from the Martins Creek Elementary School and is the third largest solar farm installed on a school property in the entire country. The system produces approximately 1.3 million KWh annually, equivalent to the energy required to power more than 150 average size homes. It also reduces carbon emissions by 936 tons each year, the equivalent to protecting 4,681 trees annually.

The system serves as a learning tool for the students and the community. With a TV monitor located inside the school, students can see real-time data coming from the PV solar system at any given time during the day. This grants teachers the ability to educate their students about the benefits of solar and living a greener lifestyle. Educating students about being environmentally conscious instills in them the principles that will one day create a more self sustainable earth. The students can utilize the learned values at home and start impacting the community in a positive way. The system has also created jobs in the local community and benefits the school directly. A portion of the PPA funds generated are given back to the school and equate to approximately keeping two school teachers employed each year.



ESA Renewables, LLC