# Holiness Solar Farm Case Study

*" ESA is proud to have designed and engineered a renewable energy technology that is an ideal O&M solution to maximizing energy generation."*

*-Jeffrey Burkett, President*

**Location:** Murphy, North Carolina

**Utility:** Tennessee Valley Authority

**System Size:** 999kW

**Footprint:** 5 acres

**Scope of Work:** EPC, O&M and Monitoring

**Construction Start Date:** May2011

**Construction Completion Date:** June 2011

**Modules:** Canadian Solar CS6P-P 235kW

**Inverters:** PV Powered PVP 260 kW

**Monitoring System:** ESA Renewables

**Annual output:** 1.3 million kWh

**Annual $CO_2$ avoided:** 120,000 kg

ESA Renewables, LLC (ESA) commissioned a 999kW grid connected solar power plant in Murphy, North Carolina. The project is under the Generation Partnership Program with Tennessee Valley Authority and Blue Ridge EMC.

During construction, potential flooding hazards were taken into account due to a natural stream that runs through the property. The ESA team worked diligently to develop the system around the stream to avoid setbacks and permitting issues. The solar farm generates over 1.3 million kWh of electricity annually, the equivalent of the energy needed to run over 150 average sized homes in North Carolina. Each year, the system will reduce carbon emissions by over 120,000kg, providing the Murphy community with cleaner air and a greener environment.

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