



# New Bern PV Rooftop Case Study

Largest Eastern NC Solar PV System  
& Largest Rooftop in Progress Energy Carolinas' Territory

*"ESA is pleased to be an integral part of such a fast growing industry as well as be responsible for the development of new renewable energy power plants that generate jobs."*

*-Jeffrey Burkett, President*



**Location:** New Bern, North Carolina  
**Utility:** Progress Energy  
**System Size:** 1.26MW  
**Footprint:** 117,160 sq ft  
**Scope of Work:** EPC, O&M and Monitoring  
**Construction Start Date:** November 2011  
**Construction Completion Date:** December 2011  
**Modules:** Canadian Solar CS6P-P 235kW  
**Inverters:** Advanced Energy 260kW  
**Monitoring System:** ESA Renewables  
**Annual output:** 1.6 million + kWh  
**Annual CO<sub>2</sub> avoided:** 1,269 tons

ESA Renewables, LLC (ESA) secured a Power Purchase Agreement from Progress Energy for the rooftop solar PV system on a local warehouse in New Bern, North Carolina. The New Bern array is a grid connected solar plant with a total power of 1.26MW. The system is Eastern North Carolina's largest solar photovoltaic array currently online and the largest rooftop installation in Progress Energy Carolinas' territory.

The New Bern solar array will generate more than 1.6 million kWh of electricity per year, reducing carbon dioxide emissions by more than 1,200 tons annually. This is equivalent to the annual greenhouse gas emissions from approximately 200 vehicles. The expected yearly energy production equals the annual energy usage of about 100 typical households.



**ESA Renewables, LLC**