

St. John PV Rooftop Case Study

“As more businesses strive to reduce their carbon footprint, a solar photovoltaic system makes sense, not only financially, but environmentally as well.”

-Jeffrey Burkett, President



Location: St. John, US Virgin Islands
Utility: Progress Energy
System Size: 16 kW
Scope of Work: EPC, O&M and Monitoring
Modules: Suniva ART 235W
Inverters: Advanced Energy 5220
Monitoring System: ESA Renewables
Annual output: 23,000 + kWh
Annual CO₂ avoided: 535 + kg

ESA Renewables, LLC (ESA) installed a 16kW solar PV system on the rooftop of Eco Serendib Villas and Spa in St. John, US Virgin Islands. The rooftop array produces more than 23,000kWh annually and avoids 35,512 pounds of carbon dioxide per year, equivalent to removing 1,100 cars from the road for a day. The system will meet electrical needs for the luxury villas such as; guest room power, pool pump equipment, gourmet kitchen, and the resort’s external lighting.

Developing in a tropical climate required ESA to mitigate prospective trouble sources including hurricanes (wind loads), earthquakes (seismic issues), humidity, and salt water residue. Risks are moderated through customized material and equipment selection that can withstand intense weather conditions. The successful installation of the solar array is a fundamental step in the right direction for providing clean, affordable energy to the Caribbean islands.

