

Grid-Tied Commercial System

Cox Communications Solar Power Installation in Bordentown, NJ

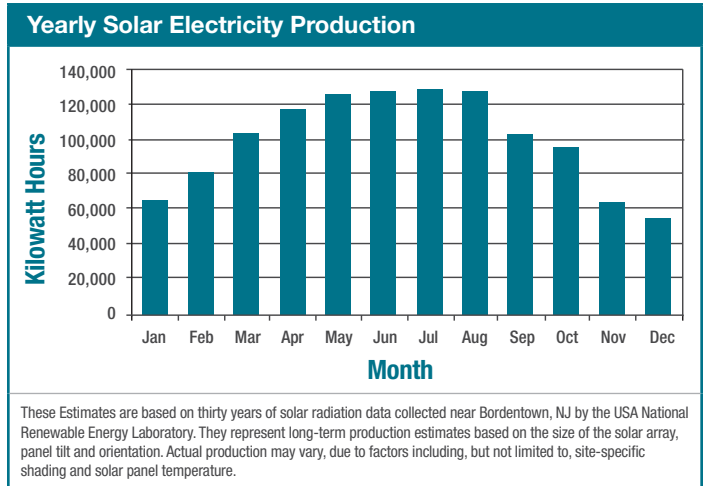


This 1MW DC grid-paralleled solar system in Bordentown, New Jersey is the largest continuous solar shade structure in the United States. The system will provide clean and low-cost power for onsite business operations for the next 20 to 25 years. As part of the Renewable Energy Portfolio, available only in New Jersey, the customer was able to lower the system cost through the sale of environmental attributes.

This 1MW single continuous array of solar modules includes 5,880, 170W photovoltaic panels spanning a total area of 104,000 square feet. The panels are tied into a single meter via 11 separate inverters; this ensures that if a single array needed troubleshooting, 90% of system would still be producing electricity. The system will generate more than 1,056,000kWh per year, which is roughly the amount required to power 114 homes. The resulting CO₂ offset of 1,900,000lbs is equivalent to preventing the emissions from 158 cars.

With a reputation for offering competitive pricing, innovative engineering and unrivaled system performance, Alpha Energy designed, installed, commissioned and tested the system. System performance and data monitoring were included as well. The system is engineered to meet our customer's objective of maximum electricity at a minimum cost.

System Specifications	
System Power:	1MW
Total Area:	104,000 square feet
PV Array:	(5,580) 170W modules
Solar Inverter:	(11) 82KW inverters
Solar Shade Structure:	Continuous



Progression Photos

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System commissioned in 09/2009



Alpha engineered continuous elevated racking system



Required 240 cubic yards of concrete



Solar panels weighed approximately 220,000 pounds



More than 550,000 pounds of steel



Size of three football fields
23 feet in the air



Required 8,000 hold down clamps



Used 5,880 solar panels



The largest continuous elevated racking system in North America