

Barrier Islands Hybrid Plant

- **Project**
Atlantic City Utility Authority power plant (www.acua.com)
- **Location**
Atlantic City, New Jersey
- **Scale**
164 kW (SolarMount® component)
305 kW (U-LA™ component)
- **Installer**
Alternity Power, a division of the Conti Group (www.alternitypower.com)
- **Completed**
December 2005



■ Fifty-two rows of PV, each consisting of 18 modules, form a canopy over the carport at the ACUA wastewater treatment plant.



■ A U-LA ground array catches the sun on December 21, when the sun is lowest in the northern hemisphere. The sub-arrays are spaced just far enough to avoid shading.

New Jersey's Barrier Islands proved to be a challenging setting for a hybrid wind-solar power plant. The Atlantic County Utility Authority planned the facility as the primary energy source for a wastewater treatment plant. Surplus electricity goes to the grid. Three UniRac structures form the solar component of the plant: a SolarMount carport canopy the size of a football field and two U-LA large ground arrays.

Prepanelization with bottom mounting clips

On the carport canopy, SolarMount heavy-duty rails allowed long spans that minimized steel supports to reduce cost. The system's bottom-mounting module clips sped prepanelization of long rows of PV modules, which were lifted into place by cranes. Alternity Power placed as many as five 18-panel rows per day. UniRac designed and fabricated custom standoffs with tilted flanges and double wide L-feet especially for the carport.

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■ SolarMount bottom mounting clips make pre-panelization quick and easy. They can be used on both SolarMount and U-LA structures.

Coastal exposure

The plant's location on one of New Jersey's barrier islands required rigorous planning for exposure to heavy weather. The installation must be able to withstand 115 mph winds in the event of a hurricane or major storm. To strengthen the design, UniRac selected U-LA's option of 3-inch steel pipe and SolarMount HD (heavy duty) module mounting rails.

It's our only business

UniRac Inc. designs and manufactures a variety of mounting structures for PV modules and arrays of any size. It's our only business. Major product lines include SolarMount®, SunFrame®, U-LA™, PV PoleTops®, PV PoleSides™, and SolarMount®/S-5!™. UniRac has distributors throughout the United States, Australia, Canada, and the United Kingdom.

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