

AP Alternatives Modular Solar Racking—Innovation Description

What is the innovation and why is it innovative?

AP Alternatives has developed a solar racking system that utilizes highly automated equipment to preassemble the racking hardware, pre-install the solar modules, and drive helical anchors into the ground rapidly. This hardware system is innovative because no one else in the industry does anything similar. The system helps reduce the field install labor drastically which helps reduce the over all project cost. AP Alternatives has worked with our parent company to utilize 25-years of high volume manufacturing knowledge to bring the knowledge to the solar industry. The system is the only one of its kind and is a cost leader in the solar industry.

What it changed or replaced?

The AP Alternatives modular system has changed the way developers/contractors install solar. In the past contractors drive I-beams into the ground and install one nut, one bolt, one rail, and one module at a time. This was extremely labor intensive in the field and hard to control project cost. When using the AP Alternatives Modular System we pre-assemble the hardware, pre-install the solar modules (prepanelization), pre-wire the modules, and palletize. These processes are all completed with highly automated tooling in quality controlled manufacturing environment. By doing it this way we can assemble the hardware fast and install the solar modules efficiently greatly reducing product/project cost.

Where and when it originated, has been used and is expected to be used in the future?

In 2008 AP Alternatives was developed by Alex Products, Inc to develop alternative products. Alex products manufacture 100% automotive components and by creating AP Alternatives, LLC the hope was to create a customer that would help diversify Alex Products. AP Alternatives also produces outdoor stadium seating and was also introduced to the solar industry by First Solar. The first three years 2008, 2009, and 2010 we focused heavily of the engineering and design of our modular racking hardware. In 2010 we installed our first 73-modular racks for the Glass City Skyway Bridge Project and it was a huge success. In 2011 we installed 11 more projects and over 4,200 modular racks. We have been growing rapidly since and in 2014 we expect to install over 40,000 modular racks.

