PatriotSolarGroup

Case Study H.

3.06MW Rockford, IL

Name: Rockford Solar Project
Location: Rockford, IL
Install Completion: November 2012
Project Size: 3.06 MW
Panel Type: 72 Cell - 290W
Racking Type: Fixed Tilt - Helicial Pier Ground Mount
Terrain: Flood Plain
Installation Services: N/A
General Contractor: Rockford Solar Partners

Project Overview

Patriot Solar Group (PSG) began working on initial mounting and layout designs during the Summer of 2011 with EPC firm, Rockford Solar Partners (RSP). Patriot and RSP were brought together through large scale global developer, New Generation Power.

The array is located on 20 acres of flood plain, which added an extra element of engineering challenges. Soil conditions were not suitable for a driven pile design and module height clearance for permitting purposes required 6 feet of ground clearance. Helical piers with a pipe size of 4.5 inches were selected to meet the project design criteria.

The 3.06MW solar PV plant in Rockford, IL has been operational since October 2012 and is the Phase I portion of a three phase Master Development that will have a total nameplate capacity of 62MW when completed.

Why Patriot Solar Group?

- Over 20 years of manufacturing and design expertise.
- Vast amounts of inventory ready to ship. High capacity/ high production manufacturing.
- Custom Engineering to meet any design criteria.
- Wet stamp drawings provided at no cost for project sizes 500kW and above.
- Patriot offers site prep and installation services for any size project.
- Renowned customer service and in-field technical support.
- Made in USA – BAA & ARRA Compliant. 10 year structural warranty.

Project Objectives

- Design racking system to meet a 90MPH wind load and 30 PSF snow load under poor soil conditions.
- Engineer ground mount system to maintain a 6 foot lead edge module height clearance above grade.
- Determine ideal post option to work with poor flood plain soils.
- Deliver entire mounting system within 5 weeks to meet demanding project deadline.

Project Results

- Ground mount system design met all local building codes and design criteria.
- Lead edge height clearance was achieved using helical piers and rail lengths maintained level rows East and West across the array.
- Racking material was delivered within 5 weeks to ensure the project met substantial completion before years end.

"New Generation Power was proud of the efforts of the Patriot team to find the best solutions for the flood plain and variable soil constraints as well as their expertise to assist in the overall site planning as required to comply with DOE and FAA regulations on this International Airport site."

- Michael Pontarelli
Director of Development,
New Generation Power

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