



**Name:** St. Clair RESA  
**Location:** Marysville, MI  
**Install Completion:** November 2013  
**Project Size:** 514 kW  
**Panel Type:** 60 Cell - 255W  
**Racking Type:** Fixed Tilt - Ballasted Ground Mount  
**Terrain:** Open Field  
**Installation Services:** N/A  
**General Contractor:** NOVA Consultants

## Project Overview

Nova Consultants and Patriot's engineering team began working together on the St. Clair RESA project in the Spring of 2013. The 514 kW array is one of a 12 MW portfolio for the midwest electric utility, DTE Electric Company.

Although site soil conditions were suitable for driven pier foundations, a ballasted racking design was chosen because of well-head obstructions throughout the field.

Long term, the racking system can be disassembled and temporarily removed to service the well-head infrastructure, during plant operation.

## 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 ballasted racking system to meet module height clearance of 4 feet above grade, a requirement of DTE.
- Ballast design and racking configuration is aesthetically pleasing, at a cost competitive price.
- Engineer post and truss equipment to allow +/- 4 inches of vertical adjustment in accordance with site grading plan.
- Deliver racking material within 6 week lead time.

## Project Results

- Racking design met the 4 foot height clearance in accordance with 90MPH wind load and 35PSF snow load.
- Rail configuration was designed to meet panel strings of 12 and met all aesthetic project requirements.
- Post vertical adjustment holes allowed in-field racking modification to maintain a level plain for module installation.
- All racking material was delivered on schedule, allowing NOVA Consultants to meet project completion deadline.