



**Name:** Western Michigan University EV Project

**Location:** Kalamazoo Michigan

**Install Completion:** Summer 2012

**Project Size:** 50kW

**Panel Type:** Mage Solar

**Racking Type:** Fixed Pole Mount

**Terrain:** Preexisting Concrete

**Installation Services:** NA

**General Contractor:** The Green Panel Inc.

## Project Overview

This 50kW solar installation at Western Michigan University is equipped with 15 charging stations for the campus' electric vehicles and free to use for the public the first three years of service.

The 216 panel array is made up of 18 unconnected customized pole mounts. Each of the separate arrays can be adjusted individually within a range of 80 degrees. Students can test how the tilt angle of the modules impact energy yield of the system. The entire system has customized inverters and charging station monitoring systems that give real time access to performance and output data of the system.

Patriot Solar Group is glad to have the opportunity to influence research and interest in renewable energy. This project interests anyone who walks by and shows that universities can commit to a cleaner and more efficient future. The charging stations are just the forefront of an entire campus wide project, funded by the Department of Energy and administered by the Clean Energy Coalition of Ann Arbor.

## Project Objectives

- Create an effective system for charging EV stations.
- Grid tie the array to allow energy that does not feed the chargers to be absorbed by other consumers.
- Innovate and support widespread adoption of solar energy production and renewable energy in general by influencing students and everyday people.
- Remain environmentally friendly by replacing trees lost to the array, multiplied by two.

## Project Results

- Real time monitoring systems and a grid tied system that can be adjusted seasonally or daily.
- Give an environmentally friendly feel to the campus and directly tie solar to the EV charging stations placed directly in front of the array.
- 9 unhealthy trees were taken down to construct the array, 18 healthy trees were placed in a convenient location on campus.

## 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.