

Enertech's Journey to Energy Independence

Greenville, IL



As a heat pump manufacturer and leading distributor for solar PV and related power products, Enertech practices what we sell whole-heartedly. Most recently, we installed large solar arrays to cover the energy needs of our headquarters in Greenville, IL, continuing us on the path to energy independence that we hope to help customers achieve. We designed and sourced all products ourselves then leaned on our power products partners, LMD Solar and Patriot Insulation Services, for installation of the ground and roof arrays.

INSTALLATION DETAILS

We used 1,441 Axitec 385W AC-385MH/144S modules, Preformed Line Products P6/Power Peak AL racking, S5 roof brackets and 5 SolarEdge 100kW, SE100K-US three-phase inverters with Synergy Technology to produce approximately 500 kW of energy, designed to cover 97% of our energy needs. From June 2020 through October 2020, Enertech used less in consumption and self-consumption (what's used prior to meter reading) than the array produced, making the system net positive.



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PROJECT DETAILS

Building size:	Main office: 32,800 sq. ft. Warehouse: 9,600 sq. ft.
Total roof space occupied by array:	Main office: 30,680 sq. ft. Warehouse: 9,600 sq. ft.
Ground space occupied:	12,210 sq. ft. with 30 ft. between each row to prevent self-shading
Solar Equipment:	DC System Size: 555.3 kW AC System Size: 500 kW Modules: 1,441 Axitec 385W Inverters: 5 SolarEdge 100kW, SE100K-US
Energy offset:	Approximately 97%
Estimated production or yearly production:	716,693 kWh's
Contractors / Installers:	Solar Installer: LMD Solar Ground Mount Pier Installer: Patriot Insulation Services Electrician: LMD Solar
Utility company:	Ameren - IL *with Demand rate
Savings:	Cost to install before incentives: Approximately \$971,000, equating to \$1.75 price per watt (before incentives) Breakdown of Incentives: 30% federal tax credit SREC incentive expected: \$436,044.73 (non-taxable) Ameren Smart Inverter rebate: \$138,695.00 (non-taxable) Annual Utility Usage Savings: Approximately \$43,000.00 (including meter charges and Ameren demand rate*) Depreciation: For commercial projects like these, it's possible to have depreciation at 100% accelerated bonus using MACRS schedule. Can be depreciated in the first year at 100% which comes to be 50% of the job cost. Or it can be depreciated over 5 years, if needed.

 **CONSTRUCTION TYPE**
Retrofit – Metal (R panel) roof 20 years old

 **POWER PRODUCTION**
716,693 kWh's

*Demand rates are like a multiplier, so when more power is used during the day, the demand rate becomes higher during that period. All savings information and power & energy information is subject to change based on system being installed for less than one year.

Power & Energy

- Consumption (Wh)
- Self Consumption (Wh)
- System Production (Wh)

