

Grid-Tied Solar Power System

Emerson Solar Power Installation in St. Louis, MO



Grid-tied
Solar Power
Case Studies



System Specifications

System Power:

100kW

Total Area:

7,800 Square feet

PV Array:

550 Black-frame
black-background modules

Solar Inverter:

DC-to-AC photovoltaic inverter

Emerson Network Power has installed this 7,800 square foot solar array on the roof of its new St. Louis data center.

Installed on top of Emerson's new data center, a 100-kilowatt solar panel array is visible across the company's corporate campus in St. Louis. "You can see this array from around the campus," said Keith Gislason, an IT strategic planner for Emerson who directed the project. "It's about the message, too."

Emerson took a forward-looking approach for its \$50 million facility, and sought to craft a design that could demonstrate the potential for solar in the data center.

This 7,800 square foot grid-tied rooftop installation includes more than 550 black-frame black-background solar panels, and is the largest solar array in the state of Missouri. It will supply about 16 percent of the data center's power requirements.



Data centers are among the largest organizational energy users and incorporating power from renewable sources to help serve this high demand can be a major factor in meeting corporate carbon reduction goals.

Emerson contacted Alpha Energy to complete the system engineering and provide onsite project management and utility interconnection management. Alpha also specified and provided purchasing options for the system hardware including 550 solar panels and a 95kW DC-to-AC photovoltaic inverter. Emerson's solar array is engineered to withstand wind storms of up to 150 miles per hour, as well as major earthquakes.



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049-223-15-002 (11/09)