

Missouri Sun Solar:

Providing Customers Cost Effective and Highly Efficient PV Systems



Farmers Park business complex in Springfield, MO - 30.6kW system

Established in 2012, Missouri Sun Solar (MSS) is a solar service company specializing in residential and commercial installations, as well as home energy assessments and improvements. Ranked one of the top residential installers in the U.S. by Solar Power World magazine, MSS is the 9th fastest growing energy company in the nation according to Inc. magazine. By keeping overhead low and constantly adapting to the changing solar marketplace, MSS aims to make it easy and affordable for customers to go solar.

Issue

MSS was looking for a solution to generate the most energy out of every system while dealing with the typical photovoltaic (PV) installation challenges, including shade and design flexibility.

Solution

CivicSolar, a leading solar equipment distributor in the U.S., introduced MSS to JinkoMX modules equipped with Maxim optimizers. CivicSolar provided technical and sales support to explain how the technology worked and the many benefits that the JinkoMX modules offer.

Maxim cell-string optimizers are highly integrated DC-DC converters that replace traditional bypass diodes by performing maximum power point tracking (MPPT) at the sub-module level. The highly granular optimization offers best-in-class shade mitigation, helps improve module lifetime performance, and enables flexible system design.



"JinkoMX panels provide better production than regular modules," said Caleb Arthur, CEO, Missouri Sun Solar. "The difference is amplified when shading is present. Depending on how much shading is on the job, the difference could be substantial."



"With advanced shade mitigation technology, JinkoMX panels produce as much power as possible even when any part of the panel is shaded," said Luke Arthur, CFO, Missouri Sun Solar. "This is done without the additional cost of a microinverter or separate optimizer. That means more power for the customer at the same price point [as standard modules]."



Residence in Branson, MO - 8.6kW system with tree shading issues

Issue

To keep offering some of the best solar installation pricing in the industry, MSS needs technology that will help it reduce install time and labor costs.

Solution

JinkoMX smart modules have Maxim cell-string optimizers built right into the junction box for maximum power in every project. There are no add-on boxes, specialized inverters or complex networking. This simplifies install effort, minimizing install time.



"With JinkoMX panels, there is no extra hardware to install or extra steps to take," said Derek Baker, Installation Crew Leader, Missouri Sun Solar. "The installer simply installs them like a regular panel without putting in a separate optimizer or dealing with any networking, like with some solutions. They don't change their process compared to a normal install, but the panels provide extra benefits regardless."

"The JinkoMX modules provide technology that helps mitigate shading issues at a price point below other alternatives," said Caleb Arthur. "There are no separate optimizers to install, so projects go faster. These panels make it simpler to design jobs, as they do not have the same restrictions on installation imposed by other panels."

[Learn more at maximintegrated.com/solar](https://www.maximintegrated.com/solar)



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