

The Philippines' PV and storage mega-project

The MTerra solar project in the Philippines is set to become one of the world's largest integrated solar-plus-storage facilities once fully completed. Ajay Mullangi, principal at global infrastructure investor Actis, which is developing the project alongside partners, updated *pv magazine* on progress since the groundbreaking in November 2024 and explains why the development is integral to the Philippines' future energy security.

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Ajay Mullangi, Actis

The MTerra solar project is expected to deliver up to 3.5 GW of installed solar capacity when complete, backed by a 4.5 GWh of battery energy storage systems (BESS). Located in the provinces of Nueva Ecija and Bulacan on the Philippine island of Luzon, the Southeast Asian project is set to be one of the world's largest.

MTerra is being developed as a joint investment. Actis finalized a \$600 million investment in Terra Solar Philippines Inc. in March 2025, partnering with MGEN Renewables Energy Inc. and its subsidiary SP New Energy Corp. on what was claimed to be the largest foreign direct investment in a single greenfield infrastructure project in the Philippines.

The project achieved initial grid synchronization in February 2025, just 15 months after its groundbreaking. MTerra's first 250 MW of solar capacity was then successfully connected by the end of March, supplying mid-merit power to the grid and supporting energy demand during peak daytime hours.

The first tranche of battery energy storage capacity has also been energized. At 450 MWh of capacity, it is already the largest operational BESS in the Philippines.

Construction work is being split across two phases, the first covering approximately 2.5 GW. This phase is undergoing staged energization and is targeting completion in the second half of 2026. The second phase, accounting for the remaining 1 GW, is also under way, with commercial operation expected in early 2027.

Once fully operational, the project is set to provide electricity to approximately 2.4 million households in the Philippines. A 20-year power purchase agreement is in place with Meralco, the largest distri-

bution utility in the Philippines, covering 850 MW (AC) for 12 hours daily on average.

Project blocks

Ajay Mullangi, principal at Actis, told *pv magazine* that the rapid rate of deployment has been made possible by the structuring of the project, and a massive team of more than 10,000 workers on the project at its peak.

“We didn't look at it like a 3.5 GW project, we looked at it as 10 parallel projects, each of 350 MW, and large interconnection infrastructure, each happening at the same time,” he explained. “The only nuance is that these ten projects are not in 10 different locations, they're all in one place.”

Challenges concerning skilled labor availability were mitigated by setting up training programs early on, Mullangi said, giving locals in the area the skills required to take on project jobs. “This has been very good because it also connects you with the local community,” he added.

Each project block has its own dedicated project managers and teams, which Mullangi said helps deal with the complexities associated with building solar projects in the Philippines. These can include natural impacts like typhoons and terrain issues.

“The parallel processing of land, permits and construction works across blocks, alongside the BESS and interconnection infrastructure, was key in achieving this progress in 16 months,” he explained.

Energy security

Projects like MTerra are also key to the Philippines' future energy security. The country is a net energy importer, with the majority of its power coming from imported coal. It is also reliant on gas and other fuels to a smaller extent that are both produced domestically and imported.

This import dependency brings both supply risks during times of crisis and pricing risks when the price of imported fuels increase, which can have knock-on



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effects such as the depreciation of the Philippine peso.

The Philippines was one of the first countries in the world to call a national energy emergency following escalation of the ongoing conflict in the Middle East and fossil fuel supply disruption following the closure of the Strait of Hormuz.

Toward the end of March, President Ferdinand Marcos Jr. called the conflict an “imminent danger” to the country’s energy supply, enacting a state of energy emergency expected to last initially for a year.

Mullangi said such volatility will reduce when the Philippines has more renewables and storage projects.

“Renewable energy projects are not dependent on any imported fuel, there are no emissions, and when coupled with storage, [they] can produce firm profiles,” he explained.

“And the price is not exposed to imported fuels, meaning no price volatility for the consumers. This is one of the reasons the government has been supportive of renewables growth and is pushing for coupling them with storage.”

Figures published by the International Renewable Energy Agency (IRENA) in its Renewable Capacity Statistics 2026 report show that the Philippines installed 899 MW of solar capacity in 2025.

The agency’s report said that the country had a cumulative solar capacity of 3.9 GW at the end of 2025, up from 3 GW at the end of 2024.

Mullangi said that more projects like MTerra are needed to advance the Philippines along the path toward energy security and to lower external dependence on the global supply chain. [pv](#)

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