



Beijing Powers Cuba's Solar Grid

BY ASHLEY CAI

Cuba is running short of fuel, but not sunshine.

As the Caribbean island's energy crisis has deepened, Chinese-provided solar panels have popped up across the country, offering an unlikely bright spot for a power grid plagued by fuel shortages, crumbling infrastructure and near-daily blackouts.

At least 41 midsize and 18 smaller-scale solar parks have been built during the past two years, according to RenewAtlas, a database that tracks solar developments and satellite imagery. The government in 2024 said it plans to build 92 midsize parks by 2028.

The solar push accelerated after a series of nationwide blackouts in 2024, in part because Cuba's imports of crude oil from Venezuela collapsed, said Ricardo Torres Pérez, a Cuban economist at American University.

But in a cruel twist, Cubans are still spending much of their days without electricity despite the surge in new solar capacity.

The island's 10 million residents have suffered almost daily power outages as fuel supplies have dwindled, a crisis that worsened after the Trump administration blocked nearly all energy shipments to Havana in late January.

The new solar parks could generate around 1,000 megawatts of capacity when operating at peak output, nearly five times what was previously installed and almost one-third of the country's typical peak demand of about 3,200 megawatts.

Solar now meets about 10% of the nation's power needs, up from 3% at the beginning of last year, the government said.

While it is unclear how much Havana is paying for the new construction, China appears to be the main source of equipment.

Beijing, the manufacturer of about 80% of the world's solar panels, sent Cuba \$117 million of equipment in 2025, up from \$3 million in 2023, according to customs data.

China has also sent more battery storage units this year, according to the data.

Cuban Prime Minister Manuel Marrero Cruz has said the projects were partially financed with nickel revenues.

The government's 2026 economic plan notes 320 megawatts worth of donated solar panels from China. Vietnam and Japan have also donated smaller amounts of equipment.

China has rapidly increased climate-related donations and financing to the Caribbean, which is one of Beijing's key transit zones for raw materials from Latin America, according to a research report from the think tank Inter-American Dialogue.

Over the past two decades, China has replaced the U.S. as the dominant trading partner for most big economies in the area.

“China gets a lot of goodwill brownie points throughout the region with what they’re doing with Cuba,” said Jorge Piñón, who studies Cuban energy at the University of Texas.

Though the new solar capacity is a welcome addition, it has done little to ease Cuba’s chronic energy problems.

Since fuel shipments and domestic-oil production have declined for years, Cuba’s import- dependent grid was in a fragile state even before the U.S. cut off Venezuelan oil and threatened sanctions on countries supplying Havana with fuel.

Cuba said in May that it ran out of fuel reserves. The Trump administration has since allowed some fuel shipments for private companies on the island.

The island’s energy infrastructure is also in poor shape. Fossil-fuel power plants have deteriorated over the past few decades, decreasing output.

Power lines have degraded, causing the loss of about 16% of the grid’s electricity, according to research by Torres.

The government is insolvent and unable to upgrade the grid.

The aging grid has also hampered the new solar parks.

The country is using only a fraction of the solar capacity it has deployed because it lacks enough battery storage to manage the fluctuations inherent in solar power, the Cuban energy minister said in April.

One battery was installed in July and three more are planned, according to state media.

Besides utility-scale projects, many families and organizations have installed rooftop solar systems. China, Spain and other nations have donated thousands of panels for individual buildings.

But the additions have yet to make a meaningful dent in the crisis.

There have been at least six nationwide blackouts this year, with countless localized dayslong power outages.

Failing living conditions have sparked protests across the country.

“Without the solar parks, the blackouts would be even worse,” said Torres. “But the reality is they’ve worsened nonetheless.”

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