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Puerto Ricans look to solar to keep hospitals running

The island territory is prone to blackouts, particularly during hurricanes. Advocates say rooftop solar could help medical facilities operate during electricity crises.



A solar-system install with the founder of the nonprofit environmental group Casa Pueblo Alexis Masol, in Adjuntas, Puerto Rico. (AP Photo/ Dennis M. Rivera Pichardo)

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The aftermath of yet another hurricane crisis in Puerto Rico underscores the serious health care challenges posed by an outdated, unreliable electricity grid.

Hurricane Fiona, which only produced Category 1 wind speeds, killed at least [17 people](https://www.salud.gov.pr/vigilancia_fiona) (https://www.salud.gov.pr/vigilancia_fiona) in Puerto Rico in September and knocked out the power grid on the island territory of 3 million people.

Nearly two weeks later, LUMA, the operator of the island's electrical grid and an object of ire for thousands of Puerto Ricans, [claims](https://lumapr.com/news/restoration-update-luma-restores-power-to-99-of-all-customers-impacted-by-hurricane-fiona/?lang=en)

(<https://lumapr.com/news/restoration-update-luma-restores-power-to-99-of-all-customers-impacted-by-hurricane-fiona/?lang=en>). power is now back on for 99 percent of the nearly 1.5 million electricity ratepayers on the island, including 100 percent of hospitals and almost all clean-water facilities.

But health centers struggled in the days following the hurricane, primarily due to problems accessing diesel, according to the Puerto Rico Association of Primary Health Care Providers. Jenniffer González-Colón, resident commissioner of Puerto Rico, said that health facilities went without power for a few days.

“I know those were critical facilities that were instructed to be the first ones to be connected to the system, and they did after that, but most of them in Puerto Rico should not rely on having a fragile electrical grid,” she said. “We should be having a robust power grid after receiving \$11.5 billion from federal money after Hurricane Irma and Maria.”

Despite investments made after the island was pummeled by the two hurricanes in 2017, the U.S. territory's energy woes have continued.

Now advocates in Puerto Rico are pushing the federal government to help install millions of megawatts of renewable energy to help create microgrids that could power emergency facilities like hospitals during broader grid crises. The renewable-energy plans would also provide a critical kickstart to a true clean-energy transition for fossil-fuel-reliant Puerto Rico.

With the loss of power, people are unable to carry out basic everyday tasks for survival, such as storing food and medicine, said Laura Esquivel, the vice president of federal policy and advocacy at the Hispanic Federation, which advocates on policies that impact Puerto Rico.

“People today still have their insulin in ice chests because the whole island doesn't have power,” she said. “A lot of people have medical equipment at home, not to mention being able to boil water to remove contaminants when access to safe drinking water is scarce.”

González-Colón wants to convene federal officials, Puerto Rican officials, and representatives from LUMA and the Puerto Rico Electric Power Authority to discuss the disbursement and use of funds and their plans in order to shore up the power grid.

“All of them at the same table, I would love to be there and go through their requests,” she said when asked what policy-makers should be doing to make the power grid more resilient for the next hurricane season.

Last week, González-Colón hosted Rep. Bruce Westerman, the top Republican on the House Natural Resources Committee, in the Puerto Rican region hit hardest by the storm. If Republicans retake the lower chamber at the ballot box

in November, Westerman will be the chief Puerto Rico policy-maker in the House.

"Federal agencies need to continue working with the Puerto Rican government and local municipalities to not only recover from Fiona, but to also rebuild with more resiliency after Maria and make sure there is timely and wise spending of the billions of federal relief dollars provided after the natural disasters," Westerman said after he surveyed the damage.

Following Hurricane Fiona, cases of leptospirosis spiked in Puerto Rico, according to the Departamento de Salud. The bacterial infection can be spread through contaminated water, causing fever, vomiting, and jaundice. It also can lead to kidney or liver failure or meningitis.

"There's been an uptick in leptospirosis on the island because of people not drinking clean water, and that's a direct result of the energy system failing," said Esquivel. "Low-income households and people with disabilities feel the impact first and foremost."

Puerto Rican law requires [40 percent](#)

[\(https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/2-ingles/17-2019.pdf\)](https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/2-ingles/17-2019.pdf) renewables on the island by 2025. And the Energy Department says the island territory has

[more solar potential than it needs](https://pv-magazine-usa.com/2022/02/17/nrel-launches-100-renewables-study-for-puerto-rico/) [\(https://pv-magazine-usa.com/2022/02/17/nrel-launches-100-renewables-study-for-puerto-rico/\)](https://pv-magazine-usa.com/2022/02/17/nrel-launches-100-renewables-study-for-puerto-rico/). But the grid in Puerto Rico runs on roughly [9.7](#)

[percent fossil fuels](#) [\(https://www.eia.gov/state/print.php?](https://www.eia.gov/state/print.php?sid=RQ#:~:text=For%20fiscal%20year%202021%20(July,fired%20power%20plant%20about%2017%25.))

[sid=RQ#:~:text=For%20fiscal%20year%202021%20\(July,fired%20power%20plant%20about%2017%25.\)](https://www.eia.gov/state/print.php?sid=RQ#:~:text=For%20fiscal%20year%202021%20(July,fired%20power%20plant%20about%2017%25.)).

Power lines traverse the mountainous central region of the island to deliver electricity from the plants in the south to San Juan and other densely populated urban centers in the north. Those lines often get damaged by storms.

There has been some progress to get important services and homes equipped with solar energy. In the years following Hurricane Maria, the Hispanic Federation partnered with other organizations to install solar systems in health and community centers. The group's funding supported installation of these systems at four federally qualified health centers, which protected them from numerous blackouts in 2022, according to a [Hispanic Federation](https://www.hispanicfederation.org/advocacy/reports/HFconPR_5YearUpdate_Final.pdf) (https://www.hispanicfederation.org/advocacy/reports/HFconPR_5YearUpdate_Final.pdf) report released in September.

“Ever since Hurricane Maria, there's been a growing clamor for rooftop solar, specifically for resiliency in Puerto Rico,” said Cathy Kunkel, the energy program manager at Cambio PR, which advocates on sustainable policies in Puerto Rico. “That's both on behalf of these critical facilities and also everyday people who are tired of the lights going out all the time and are afraid of some major disaster like Hurricane Maria happening again, or what should have been a minor disaster like Hurricane Fiona.”



📷 Locals on a couch outside their destroyed homes as sun sets in the aftermath of Hurricane Maria, in Yabucoa, Puerto Rico, Tuesday, Sept. 26, 2017. (AP Photo/Gerald Herbert) ASSOCIATED PRESS

When President Biden visited the island last week, he emphasized the focus on getting Puerto Rico “clean, reliable, affordable power,” including mini-grids. He also vowed to “deploy and expedite more resources.”

The federal focus on the Puerto Rican grid is nothing new. The Treasury

Department recently [built](https://www.whitehouse.gov/briefing-room/statements-releases/2022/10/06/fact-sheet-biden-harris-administration-strengthens-the-federal-governments-resilience-to-climate-change-impacts/) a hurricane-resistant call center on the island.

Early this year, the Energy Department [launched](https://www.energy.gov/articles/doe-dhs-hud-launch-joint-effort-puerto-rico-modernize-energy-grid) a two-year effort to study the territory’s path to decarbonizing its electricity grid. Billions of dollars have poured into Puerto Rico to help fix the grid since Maria devastated the island

five years ago. FEMA [says](https://www.fema.gov/press-release/20220606/fema-announces-progress-puerto-ricos-power-grid-work) (<https://www.fema.gov/press-release/20220606/fema-announces-progress-puerto-ricos-power-grid-work>) those funds are going toward transformative new renewable projects.

But advocates on the ground say LUMA is standing in the way of real change.

“It’s gotten worse since LUMA Energy took over the operation and maintenance of the grid,” said Ruth Santiago, a lawyer in Puerto Rico who helps run the organization Queremos Sol, which translates to “We Want Sun.”

Santiago, a member of the White House Environmental Justice Advisory Council, accused the company of resisting renewables so it can pad its pockets by focusing on traditional fossil-fuel transmission and distribution.

“LUMA’s business model is to build out long-distance transmission—high-voltage-transmission distribution,” she said. “That’s like a very 20th-century electrical grid. And they have not evolved from that.”

Rooftop solar allows homes and businesses to produce their own electricity unaffiliated with the crisis-prone grid. Santiago said medical facilities should be the first to get rooftop solar. She’s also eyeing Community Development Block Grants, a program administered by the Housing and Urban Development Department, to provide a small windfall for rooftop solar.

A DOE spokesperson, who asked to remain anonymous, said the “bulk” of post-Maria recovery funds that targeted the grid “remain unspent, even while there are still fundamental and critical faults in the island’s power grid that threaten resiliency and reliability of the grid.”

LUMA’s position as electricity-grid operator is an outgrowth of the Puerto Rico Oversight, Management, and Economic Stability Act, which passed Congress in 2016 and created a federal oversight board to vet spending in bankruptcy-beleaguered territory. LUMA, a joint venture between Houston-based Quanta

Services and a Canadian firm, took charge of the grid in 2021 after the previous operator, the Puerto Rico Electric Power Authority, racked up [roughly \\$9 billion in debt](https://www.everycrsreport.com/reports/IN10747.html) (<https://www.everycrsreport.com/reports/IN10747.html>).

Since LUMA grabbed the reins, the island has been [hit periodically by outages](https://www.cnn.com/2022/04/07/us/puerto-rico-power-outage/index.html) (<https://www.cnn.com/2022/04/07/us/puerto-rico-power-outage/index.html>). And earlier this year, FEMA reported that LUMA [hadn't yet submitted](https://www.fema.gov/press-release/20220408/fema-authorized-statements-prepa-projects) (<https://www.fema.gov/press-release/20220408/fema-authorized-statements-prepa-projects>) any new plans for major distribution or transmission projects.

Meanwhile, some entrepreneurs who are trying to deliver more renewables to Puerto Rico say LUMA is there to add more transparency in a territory dogged by corruption over past decades.

“Like the LUMA contract or hate the LUMA contract, they’re professional, they’re motivated to do their job, and they are accountable,” said Thomas King, who launched the nonprofit Fundación Borincana after Maria to help renewable-energy companies penetrate the energy market. “It’s a huge step forward that somebody is actually doing something that can be held accountable.” King stressed that renewable-project-financing mechanisms that are common in the U.S. aren’t available in Puerto Rico.

On Capitol Hill, [several members](https://www.menendez.senate.gov/newsroom/press/menendez-colleagues-call-for-emergency-funding-for-puerto-rico-after-hurricane-fiona) (<https://www.menendez.senate.gov/newsroom/press/menendez-colleagues-call-for-emergency-funding-for-puerto-rico-after-hurricane-fiona>) are hoping for Congress to provide a supplemental to Puerto Rico in the lame-duck session of Congress. Current federal appropriations expire on Dec. 16.

Hispanic Federation’s Esquivel also wants to see \$5 billion included for rooftop solar systems. “We hope that Congress will pass a disaster supplemental for Puerto Rico, but that it will include this money for rooftop solar and storage,

especially for low-income households,” said Esquivel.

González-Colón is also pressuring congressional leaders to beef up funding for Medicaid. Puerto Rico’s Medicaid program is not treated like other state programs. Funding for the program is provided through a block grant, and the federal government generally only covers 55 percent of the health costs.

Congress has routinely provided temporary increases in funding for Puerto Rico’s Medicaid, with the current federal matching rate set at 76 percent.

But this will expire in December unless Congress acts. González-Colón wrote to congressional leaders at the end of September asking for an increase in the allotment provided to the program and to increase the federal matching rate to 100 percent for the next two years.

“The money that is being used to match the federal program could be used [for] the reconstruction of the island and the power grid,” she told *National Journal*.