BLUE PLANET ENERGY
CUSTOMER
SUCCESS STORY



SOLAR-PLUS-STORAGE MICROGRID SYSTEM

Blue Planet Energy Provides Critical Power for Puerto Rican Hospital

PROJECT
Culebra Center for Diagnosis and Treatment

LOCATION
Culebra, Puerto Rico

APPLICATION
Solar-Plus-Storage Microgrid

PRODUCT
Blue Planet Energy Blue Ion 2.0

BATTERY SYSTEM
(8) Blue Ion 2.0 cabinets, 128 kWh capacity total

POWER CONVERSION
(6) Schneider Electric XW+ 6848 inverters

SOLAR
50.25 kW Canadian Solar panels
134 Enphase IQ7+ microinverters

A year and a half after Hurricanes Irma and Maria struck the remote island-municipality of Culebra, which lies about 17 miles off the main island of Puerto Rico, Culebra finally had its utility power restored. However, since Culebra regained utility power, its only hospital, Culebra Center for Diagnosis and Treatment (CDT), still faced the unreliability of the national grid as well as the inconvenience of fuel-powered generators.



After utility power was restored on the island, CDT still dealt with weekly, and sometimes daily, power outages. As a result, CDT was having to use noisy and polluting gas-powered generators for backup power, which they had to regularly refuel, taking time away from their primary focus of providing medical services.

Recognizing the critical need for the hospital to provide uninterrupted medical services, the Clinton Foundation, Direct Relief, the Solar Foundation and the Hispanic Federation joined forces to find and deploy the optimal solution. The organizations turned to Pura Energia, a reputable and experienced Puerto Rican solar panel and energy storage installation company.

"We needed a proven, reliable, commercial-grade and no maintenance energy storage solution with a life expectancy similar to the installed PV modules and microinverters, so about 25 years. Blue Ion was the obvious choice."

—Jonathan Barreto
Electrical Engineer, Pura Energia





Having installed countless Blue Planet Energy Blue Ion 2.0 solutions in the past, Pura Energia readily recommended a solar energy plus Blue Ion 2.0 energy storage microgrid.

Quality Plus Ease-of-Use

Pura Energia also recommended Blue Ion 2.0 because of how easy the solutions are to install and because of how compact and energy dense they are. Pura Energia also knew that the energy storage solutions and power electronics would need to be installed in a shipping container before being shipped to the island. Due to their small footprint, Blue Ion 2.0 solutions easily fit within the shipping container, with room to spare for ease of accessing the equipment within the container.

Blue Ion 2.0 also uses the safest lithium battery chemistry, lithium ferrous phosphate, which is not prone to fire or thermal runaway like other lithium battery chemistries, which was essential for this project due to the medical setting.

This grid-tied, AC coupled solar+storage microgrid consists of: eight Blue Ion 2.0 battery banks, with 16 kWh per bank, for a total of 128 kWh of energy storage, 50.25 kW of solar power from Canadian Solar panels, 134 Enphase IQ7+ microinverters and six Schneider Electric XW+ 6848 inverters. Should the hospital's energy use increase over time, the Blue Ion 2.0 solution can easily be scaled up. This microgrid is also remotely monitored and controlled using Enphase and Schneider Electric's online portals as well as the Blue Planet Energy monitoring portal, so that Pura Energia and hospital management can be aware of the system's status at all times.

This solar+storage microgrid provides critical backup power for CDT's entire emergency room and clinic, including outlets, lighting, and vaccination refrigerators.

Reliable Power Gives Peace of Mind

Since the installation of this system, CDT has not had any issues with power outages and is able to fully focus on their medical services now that they no longer have to continually refuel their generator. The hospital staff and patients are especially appreciative that they no longer have to breathe in the emissions from the old gas generator and can enjoy the newfound silence from the solar+storage microgrid.

Thanks to the Clinton Foundation, Direct Relief, the Solar Foundation, Pura Energia, solar energy and Blue Planet Energy's safe, reliable and long-lasting energy storage solutions, CDT will never have to worry about power outages or refueling finite gas for their generator again.

