BLUE PLANET ENERGY
CUSTOMER
SUCCESS STORY



SELF-CONSUMPTION SOLAR-PLUS-STORAGE SYSTEM

Delivering Cost Savings and Energy Resilience to Hawaii Homeowners

PROJECT
Porter Family Residence

LOCATION
Waiki'i Ranch, Big Island, Hawaii

APPLICATION
Self-Consumption, Electric Bill Cost Reduction

PRODUCT
Blue Planet Energy Blue Ion HI

BATTERY SYSTEM
(2) Blue Ion HI 16 kWh, 32 kWh total capacity

POWER CONVERSION
(2) Sol-Ark 12K Inverters

SOLAR
14.7 kW Hyundai PV Array

Hawaii has the highest average electricity retail price of any U.S. state, in part because it relies on petroleum for more than 60% of its electricity generation. Josh Porter and his family, homeowners at Waiki'i Ranch on the Big Island, were paying nearly nine hundred dollars per month for electricity from the state grid before deciding to seek out a more sustainable, cost effective and resilient source of energy.



Before they decided to invest in a renewable energy system, the Porter family wanted to make sure that the upfront costs would result in a long-term net gain.

The Porters ultimately considered pairing solar energy with Blue Planet Energy systems, given the Blue Planet Energy systems' 15-year performance warranty and sleek design aesthetics as well as the popularity of the company on the island.

When the Porter family subtracted the federal investment tax credit and the state tax credit from the upfront price of the solar energy and Blue Ion HI system, they determined that this new system would pay for itself in a little over four years.

"The Blue Ion HI is an extremely reliable, no maintenance, long-term investment, and we love its sleek, high-quality design."

—Josh Porter
Hawaii Homeowner

Instead of paying HELCO, the local utility company, nearly $11,000 per year in electricity costs, assuming the current rate doesn't increase, the Porter family decided to invest in a robust solar-plus-Blue Ion HI energy storage system to eventually pay nothing for more resilient and sustainable energy. The financial savings also meant that the Porters could reallocate these crucial funds toward their daughter's future education.

Energy Resilience & High-Quality Design

Beyond saving a substantial amount of money long-term, the Porter family also appreciated that the Blue Ion HI system was extremely reliable and backed by an unmatched performance warranty. The Hawaiian islands are prone to increasingly severe wind and rain and have experienced prolonged state grid outages due to inclement weather and earthquakes. The Porter family also knew Blue Planet Energy solutions were selected to be installed in Red Cross community resiliency projects throughout Puerto Rico and could therefore be relied upon in remote environments where extreme weather fluctuations are common.

As a successful entrepreneur and highly regarded member of the Big Island community, Josh Porter frequently entertains guests and has enjoyed being able to place the high quality, sleek and eco-friendly Blue Ion HI on display. The Porter family selected the Blue Ion HI system because it does not require maintenance like lead acid batteries, is compact and fits easily into their home. They also chose this system because it uses the safest, most environmentally benign, lithium iron phosphate chemistry, and would be the safest system to have in their home with their young daughter.

Fast Installation, Stackability & Expandability

The Porter family selected Jeff Richardson, President of CPM, LLC, to design and install their on-site solar plus storage microgrid due to his vast knowledge of home construction and solar energy, and his nearly a decade of experience successfully installing Blue Planet Energy systems. Jeff designed this solar-plus-storage system to power the Porter family's 70 kilowatt hour daily energy usage with room to expand in the event their energy usage increases over time. This robust solar-plus-storage system now powers the Porters' entire 3,600 square foot home, including all lighting and outlets, two full-sized refrigerators, a booster pump for water pressure, as well as a water purification system. Although this system is technically grid-tied, the grid is only used as a backup source of power, as the Porters are essentially living off grid with their new system on a daily basis.

Jeff was thrilled that the Blue Ion HI system reduced the installation time by half compared to other systems. "From a removable door to no-drill conduit knockouts, the Blue Ion HI has clearly been intentionally engineered for faster installations," Jeff explained. "The cabinets are also quite light, as I can pick one up by myself, without additional labor support." The Blue Ion HI's well designed racking system also allows Jeff to easily place and stack the battery modules and to quickly expand capacity in units of 8, 12 or 16 kWh as the Porters' energy needs evolve over time, without system overhauling or additional accessories.



"I was already ecstatic that I no longer had to teach customers to water their lead acid batteries and because my service calls dropped to practically zero after I switched to installing Blue Planet Energy systems from lead acid batteries many years ago," Jeff continued.

"The fact that the Blue Ion HI can be installed in half the time compared to other lithium battery systems, and its ability to be easily stacked to maximize energy density while minimizing installation footprint, is a game changer."

In addition to reducing installation time as well as being able to easily stack and expand, the Porters' Blue Ion HI system also comes with the intuitive Nāmaka communications platform, which integrates with their existing on-site solar energy system and the local electrical grid. The Nāmaka system allows both Jeff and the Porters to visualize performance data to inform actionable insights around the Porters' energy usage patterns.

As a result of Jeff's meticulous design and installation work, solar energy and the reliable Blue Ion HI, the Porters have been able to achieve long-term cost savings and energy resilience all while mitigating their impact on the environment. The Blue Ion HI also halved the installation time for Jeff, resulting in significantly reduced labor costs.