



Building Resilient Communities

Through Distributed Solar + Storage

A Centinel Resiliency Initiative
Implemented at Island Palm Communities
- In Partnership with Holu Hou Energy



Executive Summary

Island Palm Communities (IPC) spans seven U.S. Army installations, 12 communities and 42 neighborhoods on Oahu, Hawaii, and is one of the largest residential privatized housing projects awarded by the Army. As part of Centinel's commitment to creating communities where people can live, work and thrive, Centinel partnered with Holu Hou Energy to deploy advanced solar and battery storage systems designed to improve energy resiliency, reduce outage impacts, and support long-term sustainability goals for residents.

As Hawai'i experiences rising utility costs, increasing grid instability, and growing resiliency concerns, distributed solar photovoltaic (PV) and battery storage systems are becoming critical community infrastructure. Holu Hou Energy's EnergyCluster™ platform was developed specifically to address these challenges by deploying intelligent solar and battery systems at the individual home level while creating community-wide resiliency benefits.

Between February and May 2026, Island Palm Communities (IPC) at Aliamanu Military Reservation (AMR) experienced multiple utility outages ranging from one hour to nearly nineteen hours in duration. Throughout these events, Holu Hou Energy's systems repeatedly demonstrated their ability to support residents, reduce outage impacts, maintain critical household functions, and rapidly recover following utility restoration.

The IPC project represents one of the nation's largest residential solar-plus-storage deployments utilizing a behind-the-meter energy-sharing model, enabling homes to share excess solar and battery power in real time.

Hawai'i residents face some of the highest electricity costs in the nation while also becoming increasingly vulnerable to:



UTILITY OUTAGES



AGING GRID INFRASTRUCTURE



RISING ELECTRICITY RATES



FUEL PRICE VOLATILITY



CLIMATE-RELATED DISRUPTIONS



ENERGY SECURITY CONCERNS

Hawai'i communities face increasing energy challenges that require smarter, more resilient solutions. Distributed solar and battery storage help reduce costs while keeping families powered during grid disruptions.

Holu Hou Energy's EnergyCluster™ Solution

Unlike traditional solar installations that operate independently at each home, Holu Hou Energy's proprietary EnergyCluster™ architecture creates an intelligent distributed energy network designed specifically for residential communities.

The Platform Combines:

- Solar PV generation
- Advanced battery storage
- Distributed energy management
- Energy sharing between connected homes
- Community resiliency capabilities
- Long-term energy cost reduction

IPC Real World Outage Performance

Overview

Location: Island Palm Communities (Aliamanu MR)

Community Owner: Centinel Public Partnerships (Centinel)

Project Type: Military Housing Community

Systems Installed and Operational as of dates below:

- February 2026: 693 systems
- March 2026: 727 systems
- May 2026: 777 systems

Current Buildout:

- 900 homes completed
- Approximately 9 MW of solar generation
- Battery storage integrated throughout the community
- All homes non-exporting with the exception of a small number enrolled in grid services

Date	Duration	Active Systems	Virtually No Outage	Shortened Outages	Energy
Feb 16	1 Hour	693 homes	693 homes	—	—
Feb 24	2 Hours	693 homes	662 homes	25 homes	3,551 kWh
Feb 25	5 Hours	693 homes	533 homes	158 homes	5,952 kWh
Mar 2	4 Hours	727 homes	131 homes	598 homes	9,180 kWh
May 25	19 Hours	777 homes	—	774 homes	12,275 kWh

Date: February 16, 2026

Outage Duration: Approximately 1 Hour

Result: Reliable system performance and rapid restoration.

Date: February 24, 2026

Outage Duration: Approximately 2 Hours

Result: Strong daytime resiliency performance as solar production supplemented battery storage throughout the outage.

Date: February 25, 2026

Outage Duration: Approximately 5 Hours

Result: Strong daytime resiliency performance as solar production supplemented battery storage throughout the outage.

Date: March 2, 2026

Outage Duration: Approximately 4 Hours

Result: Strong daytime resiliency performance as solar production supplemented battery storage throughout the outage.

Date: May 25, 2026

Outage Duration: Approximately 19 Hours

Result: One of the most significant demonstrations of residential distributed energy resiliency in Hawai'i. Even though the outage began overnight—when batteries had already supplied energy during evening hours—the systems continued supporting residents as solar production resumed throughout the day. 159 homes exported DC energy within system clusters

Cumulative Resiliency Results

Across multiple outages between February - May:

- 30,958 kWh backup energy delivered
- Hundreds of homes avoided outages
- Thousands of resident-hours of outage impacts were reduced
- Critical household loads remained operational
- Residents experienced increased comfort, security, and quality of life



Intelligent Energy Sharing in Action

Conclusion

The repeated performance of Holu Hou Energy's systems during multiple utility outages validates the value of distributed solar and battery storage as essential community infrastructure.

More than 30,958 kWh of backup energy and support for hundreds of homes during prolonged outages demonstrates that resilient energy systems can provide measurable benefits today — not just in theory, but in real-world operating conditions.

As utility costs continue to rise and grid disruptions become more common, communities equipped with distributed solar and storage will be better positioned to protect residents, reduce costs, and strengthen long-term resiliency.



About Centinel Public Partnerships

Headquartered in Nashville, Tenn., Centinel Public Partnerships is dedicated to enhancing the lives of U.S. military members and their families through its high-quality housing and lodging communities. With a portfolio of 10 housing communities and over 70 hotels across 26 states and Puerto Rico, Centinel's leadership team brings 25 years of experience to one of the largest military housing privatization portfolios in the United States. Through its established partnerships with WinnResidential Military Housing Services and IHG® Hotels & Resorts, hotel operator and manager of IHG Army Hotels, Centinel provides exceptional communities and lodging experiences for service members and their families.

➔ Why This Matters

Benefits Include:

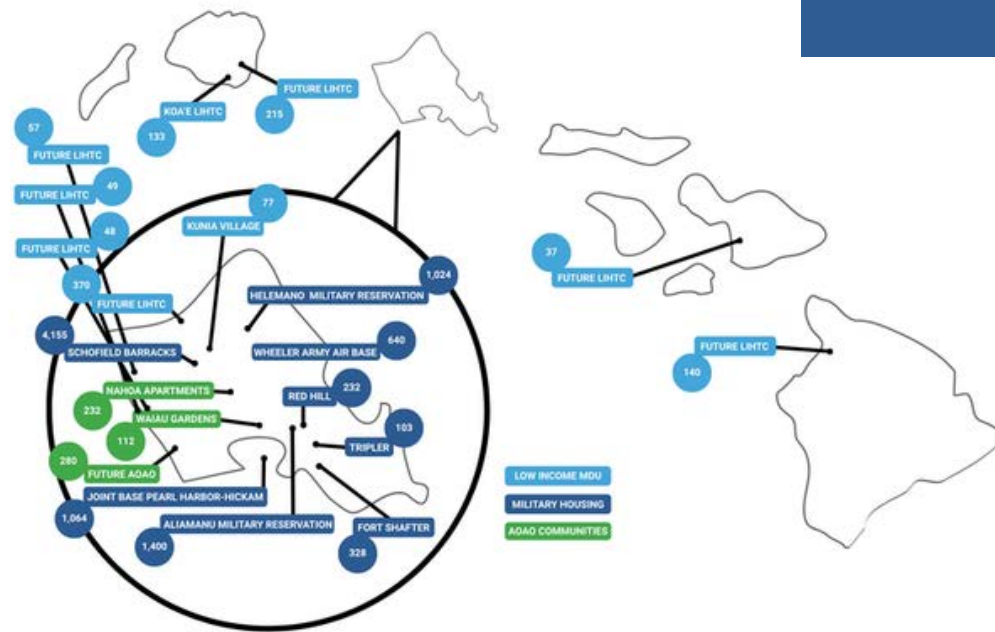
- **Reduced utility costs**
- **Increased energy independence**
- **Reduced outage impacts**
- **Improved resident satisfaction**
- **Enhanced emergency preparedness**
- **Greater community resiliency**
- **Reduced dependence on centralized generation**

➔ The Future of Community Energy

A Proven Model For:

- **Military housing communities**
- **Affordable housing developments**
- **LIHTC projects**
- **Townhome communities**
- **Condominium associations**
- **Master-planned communities**





➔ Dynamic Innovation & Proven Grid Support

- Our non-exporting systems are designed for self-consumption and for grid-constrained areas.
- We “cluster” systems for multiple residences, dynamically sharing energy on the DC line, to ensure no wasted solar during vacancies or turnover.
- Holu Hou Energy’s technology aligns with the Hawaii PUC’s Integrated Energy District model, supporting grid stability.

Solving the MDU Challenge



EnergyShare Technology

Produces More Energy and Needs Fewer Batteries & Panels vs Standard Systems.



Lower Energy Costs

Residents Pay Less For Energy, and Solar Energy Rates Are Set For Duration of PPA.



Streamlined Billing

Federal/State Programs (HGIA/GEM\$) Partner to Streamline Billing/Systems. HHE has also partnered with Fram Energy, a third-party solar billing company, to automate billing, manage revenue collection, and perform utility comparisons and audits.



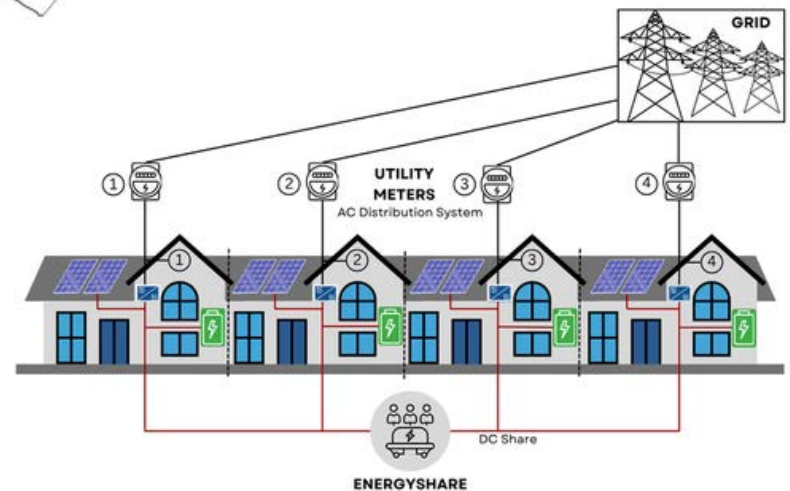
Additional Benefits

Resiliency to the Community & Residents. Community Future Buy-Out Potential & Covered Parking Options.



Trusted by Local & Military Communities

More than 1,500 homes are already benefiting from Holu Hou Energy’s Innovative Technology.



Our EnergyShare Technology Is Trusted By Local Communities & the US Military



- Partnering with Centinel Public Partnerships, LLC on 1,400 U.S. military homes currently under construction at Aliamanu Military Reservation will result in 15 MW of solar energy and 25 MW hours of storage. All 1,400 homes will have energy in the event of a power outage, making this the largest single resilient community in the country.
- Expansion is planned to thousands of additional U.S. military homes across O’ahu.
- This same technology provides resilience and reduced costs to communities like Koa’e (Kaua’i) and Kunia Village (O’ahu). Low income projects are also planned in more than a dozen additional communities across the state.