



**Maui's First Self-Supply Battery Install OCT 21, 2016**

<https://www.mauinews.com/news/local-news/2016/10/celebrating-the-sun/>

# RE+ Hawaii

Meeting Load Growth in the Digital Economy Panel

Jan 27<sup>th</sup>, 2026

**10 Years since the end of NEM  
BESS Self Supply Systems begin.**

- NEM Ends 2015
- Self Supply 2016
- Smart Export 2017
- Battery Bonus Jun 1, 2022
- BYOD April 1, 2024
- Exec Order 25-01 Jan 2025

Hawaii has the highest storage attachment rate in the country, but the BYOD VPP program is not enrolling a meaningful number of batteries. The program needs to change to meet Hawaii's energy goals and provide peak shaving, resiliency and lower costs.

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# Hawaii DERS/BYOD

## Hawaii 2026 DERS:

Roughly 45% of all Single-Family Homes have a Rooftop PV System (119,000 Solar DERS).

**DER Docket Closed** 8/8/25 In its closing **Order No. 41866**, the Commission marked the end of a decade-long investigation into DER policies but failed to resolve the BYOD program . The Commission has not opened a successor proceeding to develop new grid service programs that it has been promising for a year.

## Governor's Clean Energy Exec Order 25-01 Jan 2025 to accelerate Rooftop Solar + Storage

- 50,000 New DERS by 2030 (###MW) 50% of the systems should benefit LMI customers.
- 10,000 systems per year
- **Maintain Hawaii Renewable Technologies Income Tax Credit 35%**
  - Gov Green Vetoed **HB796** and Gov Inge Vetoed **SB2510**
- **Current Market Growth is 2% to meet Mandate 10,000 systems/yr we need 8% Market Growth**
  - End of Residential ITC will slow the market. Need to accelerate 4X and make up for the loss of the ITC .

## Hawaii 2026 VPP:

- **Battery Bonus** 2.5 Years 40 MW 1,800 Customers
- **BYOD/BYOD+** 2 Years ###MW ###Customers

# Hawaii VPP Program Update

**An update to the existing BYOD is needed to help meet the states energy goals and make up for the loss of the ITC.**

## **Recommendations :**

- **Create Program update incentives with the stated goal to:**
  - Enrolling 50% of all new systems in BYOD.
  - Enroll 50% of all existing NEM and NON-NEM systems.
  
- **Add value by having the systems be remote dispatch similar to Connected Solutions in Massachusetts.**
  - Fulfill promise to allow Battery Bonus Customers into a BYOD (“successor program”) Battery Bonus Customers receive retail credit for grid service exports.
  
- **Set Goal to have a new BYOD successor program in place by summer 2026**
  - Open Docket to Address BYOD.
  - Program allows aggregators to enroll new and existing systems.
  - Retail Crediting for energy exports.
  - Incentive structure to move the post ITC market.
  
- **Set Goal for Summer 2027 to add additional VPP programs to incentivize customers to enroll PV+BESS, Their Loads, and Their EV.**

A photograph of a modern, dark-colored house with solar panels on the roof. The house has large windows and a white door. Two people are walking on the porch in front of the house, their figures blurred to suggest motion. The background is filled with lush green trees.

# SUNRUN

## Distributed Power Plants

Chris Rauscher,  
VP, Head of Grid Services & Electrification

RE+ Hawai'i 2026



1.1

million total  
customers

3.7 Gigawatt hours of Networked  
Storage Capacity.

106,000

Customers enrolled in 17 Distributed  
Power Plant programs across the  
United States.

217,000

Customers with home battery storage.

70%

Storage Attachment Rate in Q3.

Up from 60% in Q3 2024, and 33% in  
Q3 2023.



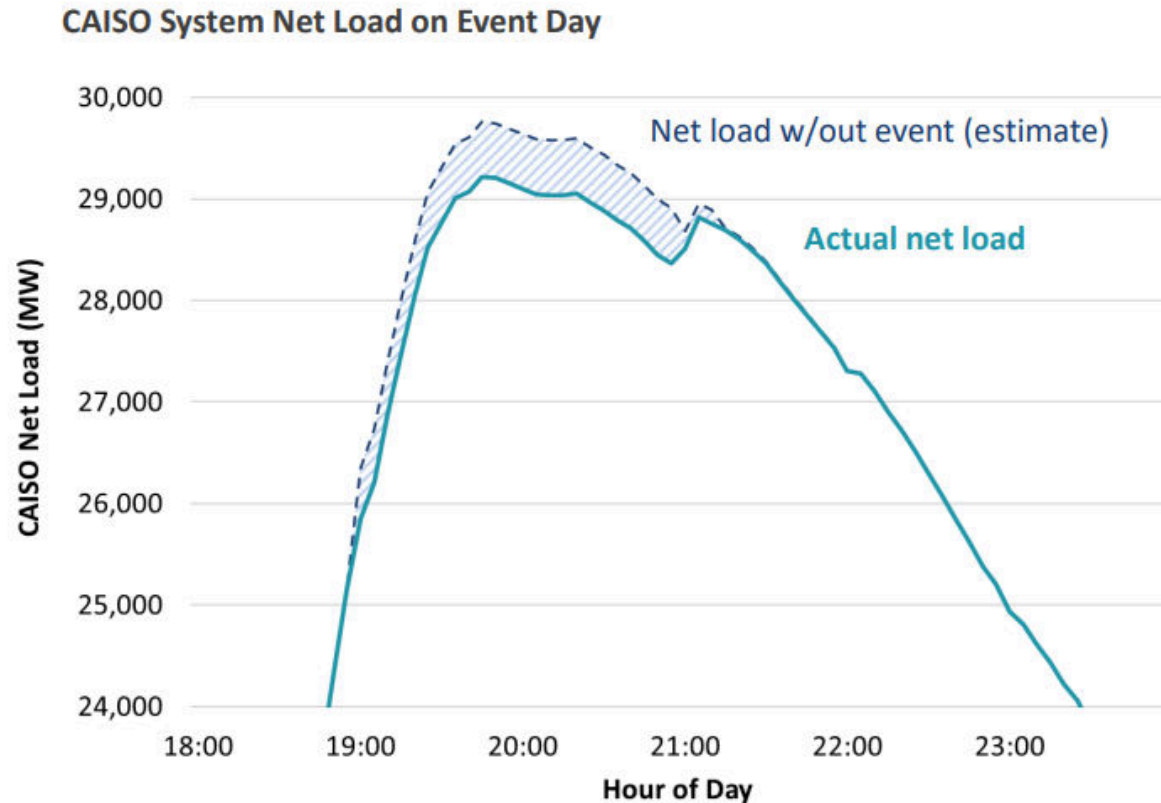
# At-scale resi battery DPPs

In 2025, 106,000 battery customers in 17 DPPs across the US, representing nearly 700 MW of dispatchable energy storage providing utility-scale grid services.

DPP Name	Type	State	Notes
CalReady	Aggregator	CA	Largest resi DPP; providing bulk system peak reduction
PowerON PR	Aggregator	PR	Largest DPP in LatAm; 10x growth YoY
ConnectedSolutions	BYOB + Agg.	MA, CT	Program certainty allows innovative customer financing
Orange and Rockland	Bilateral	NY	Largest residential DPP in NY
PG&E Local PeakShift	Bilateral	CA	First-of-kind DPP providing locational distribution relief
Retail Electric Provider + VPP	Bilateral + Wholesale	TX	Exclusive REP+VPP products with leading REPs like NRG & Tesla
Load Modification	Bilateral	CA	Long-term daily dispatch for sustained load reduction

**First residential bidirectional vehicle-to-grid DPP program with Baltimore Gas & Electric**

# Distributed Power Plants Are Starting to Show Up Big



Notes: Net load sourced from [CAISO](#) and reflects actual demand less solar and wind output. Baseline net load in the absence of the event was constructed using 5-minute and 15-minute telemetry data provided Tesla Energy and Sunrun, respectively. All battery output is shown as a reduction in net load, including exports to the grid.

- **539 MW** of battery power was dispatched between 7 - 9 p.m., mainly from Sunrun and Tesla Distributed Power Plants—a capacity **comparable to California's top 10 utility-scale generators** and enough to power half of San Francisco.
- Most of this capacity is enrolled in **CEC's Demand Side Grid Support (DSGS)** program—projected to **save all Californians up to \$206M over 4 years** (Brattle Group).

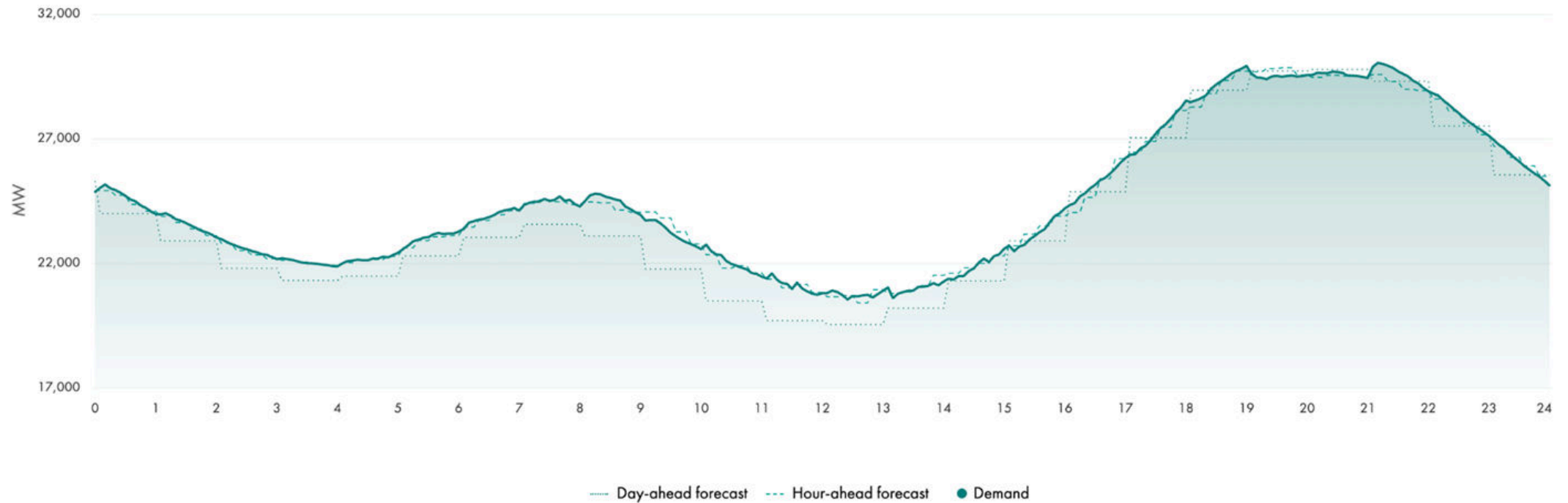
*Led by Sunrun with with 361 MW, California's energy system saw a 1.9% net peak reduction on July 29*

# Don't take our word for it - take CAISO's!

## Demand trend

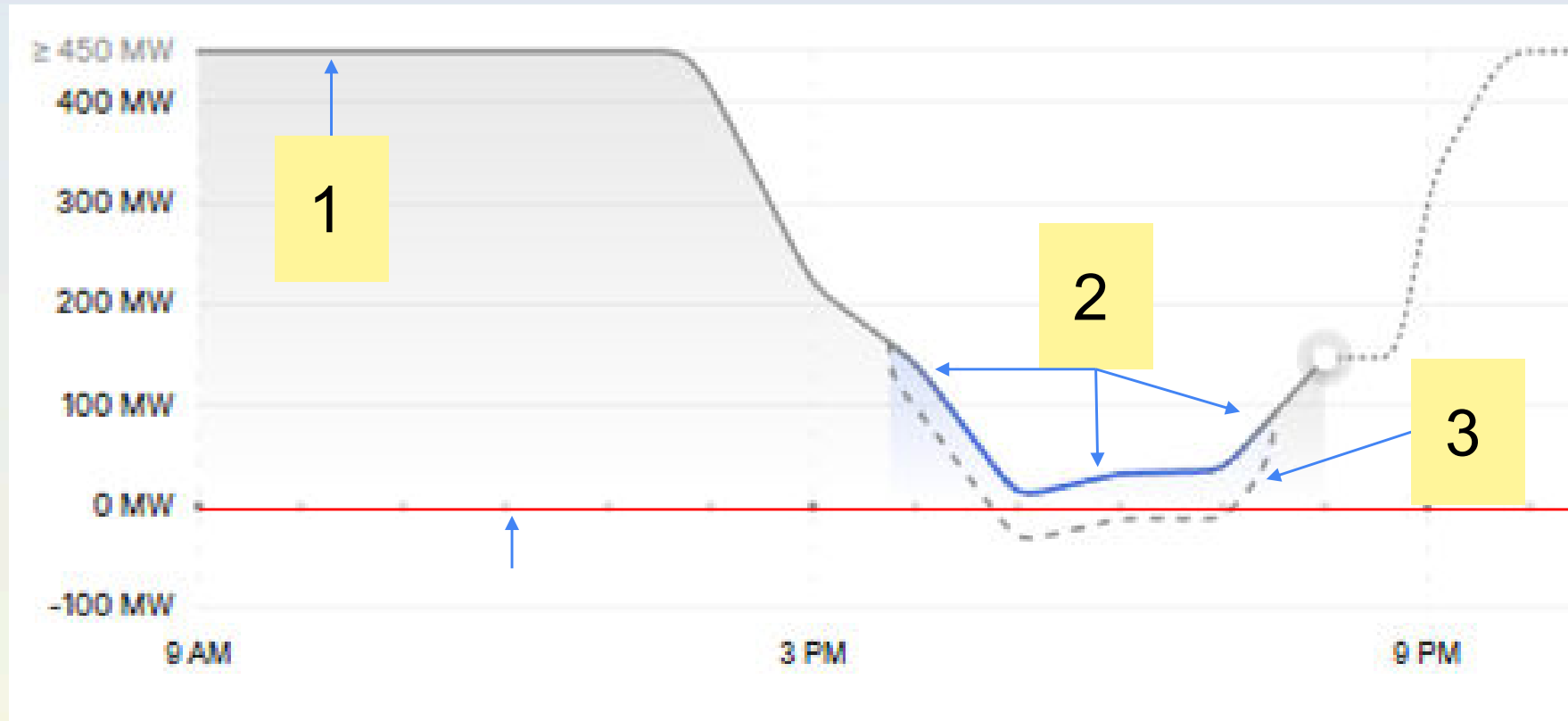
System demand, on a 5-minute average, compared to the forecasted demand.

06/24/2025 Options Download



<https://www.caiso.com/todays-outlook>

# Distributed Power Plant Keeps Lights on in Puerto Rico!



1. The solid gray line is the operating reserves of the grid (total supply minus total demand)
1. The line turns blue when the DPP is dispatching
1. The dashed gray line is a projection of what the operating reserves would have been if the DPP had not dispatched

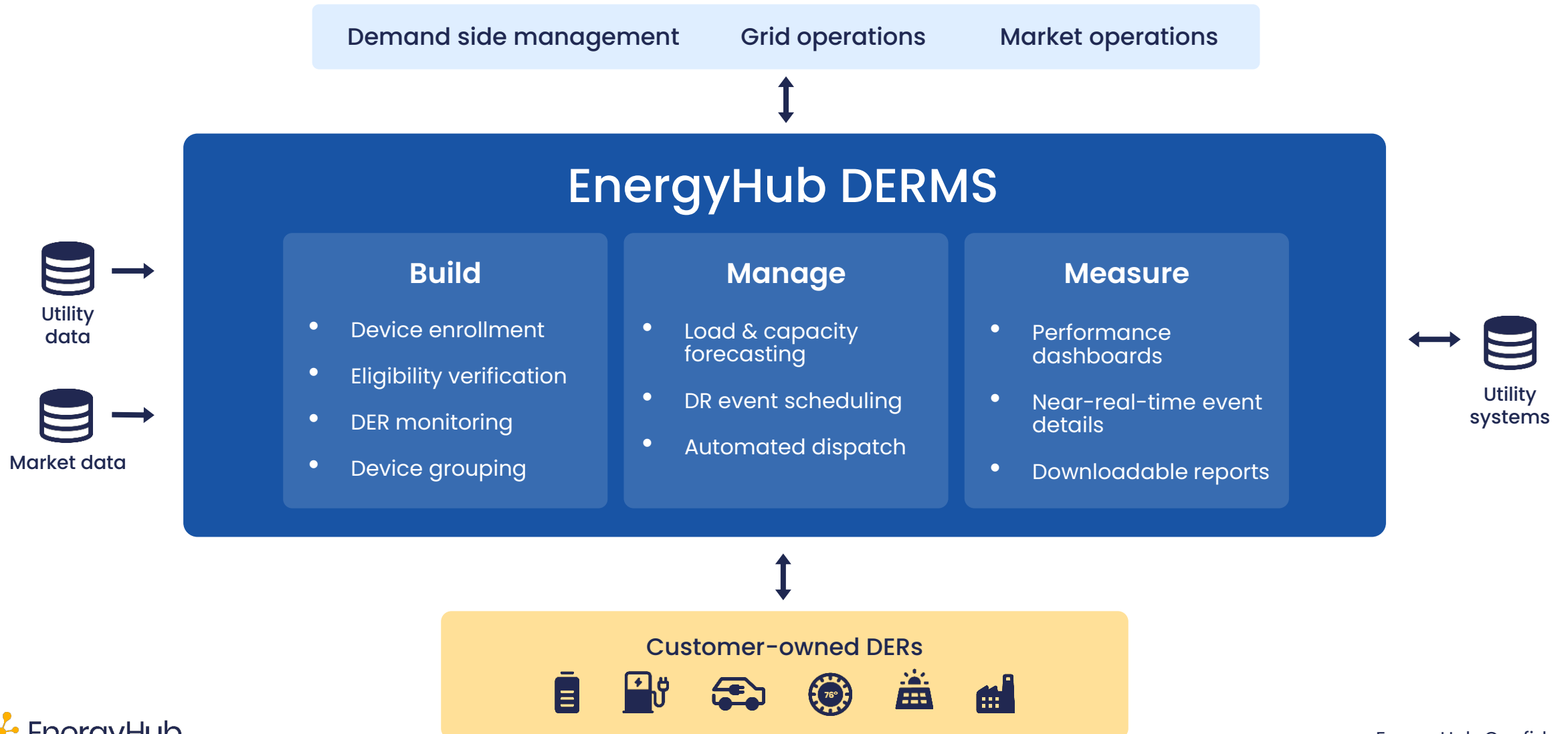
*“This collaboration helped address a generation shortfall of nearly 50 MW, assisting in preventing multiple load shedding events and keeping the lights on longer in many communities across the island” - LUMA (Puerto Rico Utility)*



# MEETING LOAD GROWTH WITH VPPS

RE+ Hawaii

# Edge DERMS delivering flexibility at scale





**150+**  
Utility clients

**3.4+ GW**  
Dispatchable flexible capacity

**70+**  
DER vendors integrated

# VPP maturity model

LEVEL 0

## Basic DR

Manually reduce peak loads without insights into performance

LEVEL 1

## DR + data

Demand response with connected devices that provide bi-directional data

LEVEL 2

## Enhanced DR

Multi-season demand flexibility with flat load shapes and some locational control

LEVEL 3

## Automated VPP

Passes the Huel's Test. Dynamically shapes load with higher availability across seasons and integrations into grid-control systems

LEVEL 4

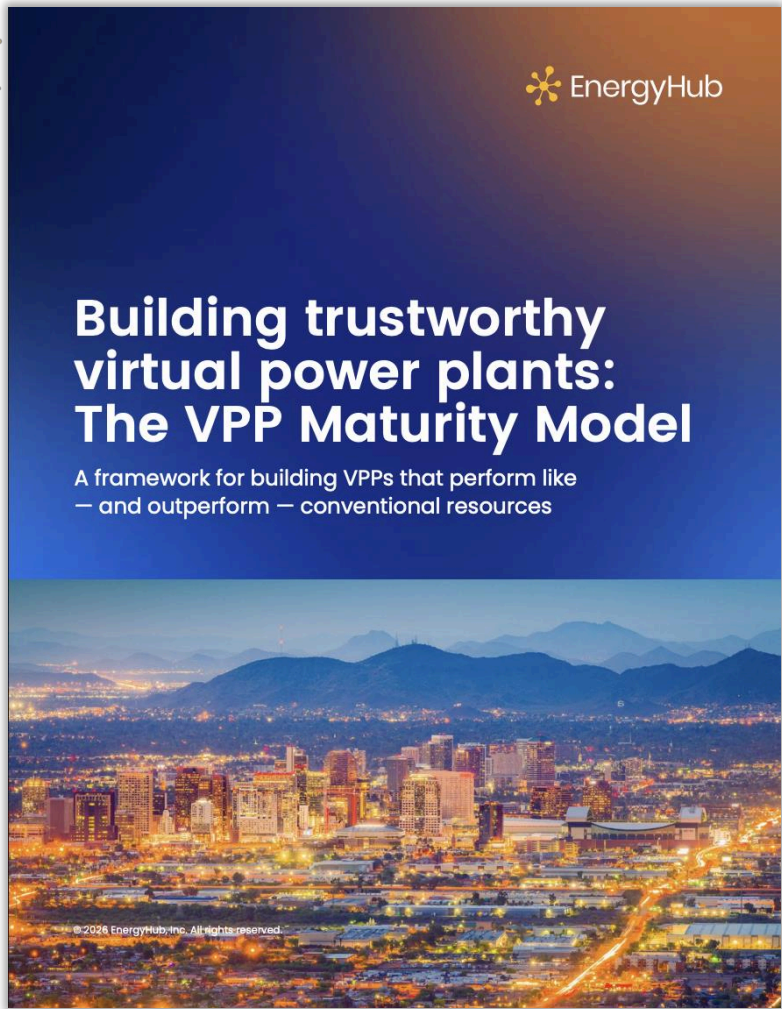
## Grid-adaptive VPP

Respond to grid needs continuously by autonomously optimizing for multiple customer, bulk grid, and distribution system objectives

Does not pass the test

Replace power plant

Exceeds power plant



Download the white paper

