

Partnering with CCAs on the Path to a Cleaner, More Resilient Grid

The Climate Center

December 2021

Company Overview



2,095 Employees ¹

Globally with HQ in Fremont, California



900+ Installers ¹

In our Enphase Installer Network (EIN)



Recent Acquisitions

Doing well and fully integrated



39 Million+ ¹

Microinverters shipped, representing approx. 12 GW



1.7 Million+ Systems ⁴

In more than 130 countries



\$1.37B Revenue in 2021 ²

77% Increase from 2020



245 MWh ²

IQ Battery shipments



40% Gross Margin ³

Disciplined pricing and cost



IQ8H™ is our highest power 1P1M microinverter with peak power of 384VA



¹ As of Sept. 30, 2021

² Total for the year assumes Q1'21 to Q3'21 actual and mid-point of Q4'21 guidance

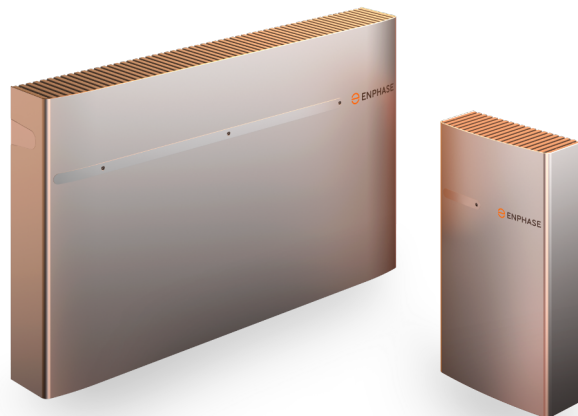
³ Non-GAAP gross margin assumes Q1'21 to Q3'21 actual and mid-point of Q4'21 guidance. Refer to Appendix for reconciliation to the most comparable GAAP measure.

⁴ Includes Enphase systems as of Sept. 30, 2021, grossed up for non-managed and unconnected systems

Our Core Competencies



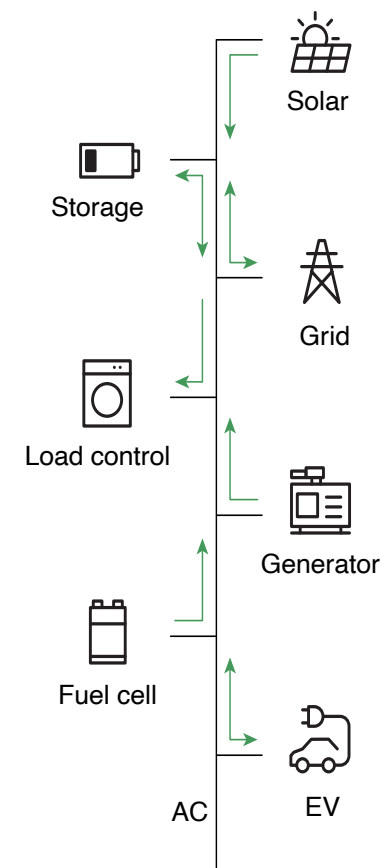
Semiconductors



Batteries

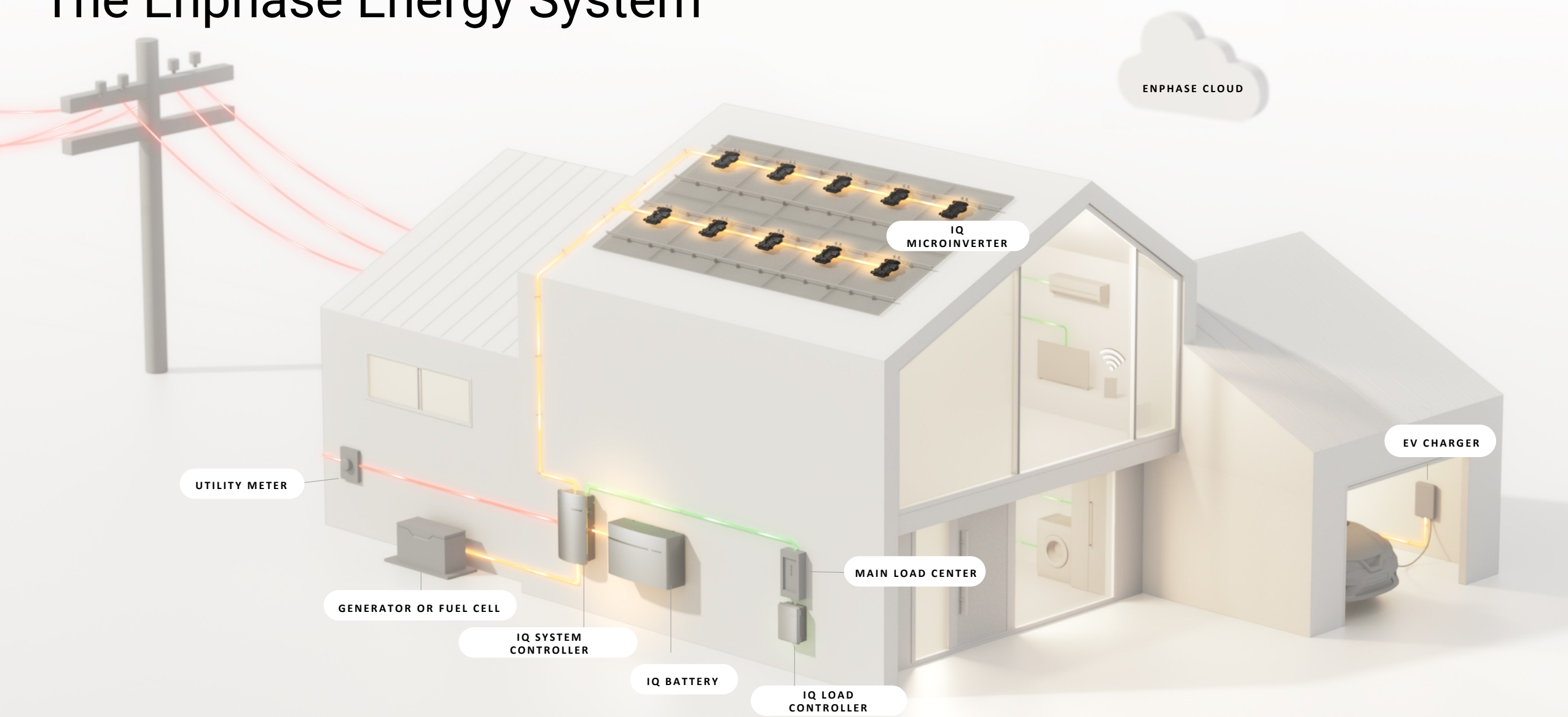


Software



Ensemble™

The Enphase Energy System



Embedded Software

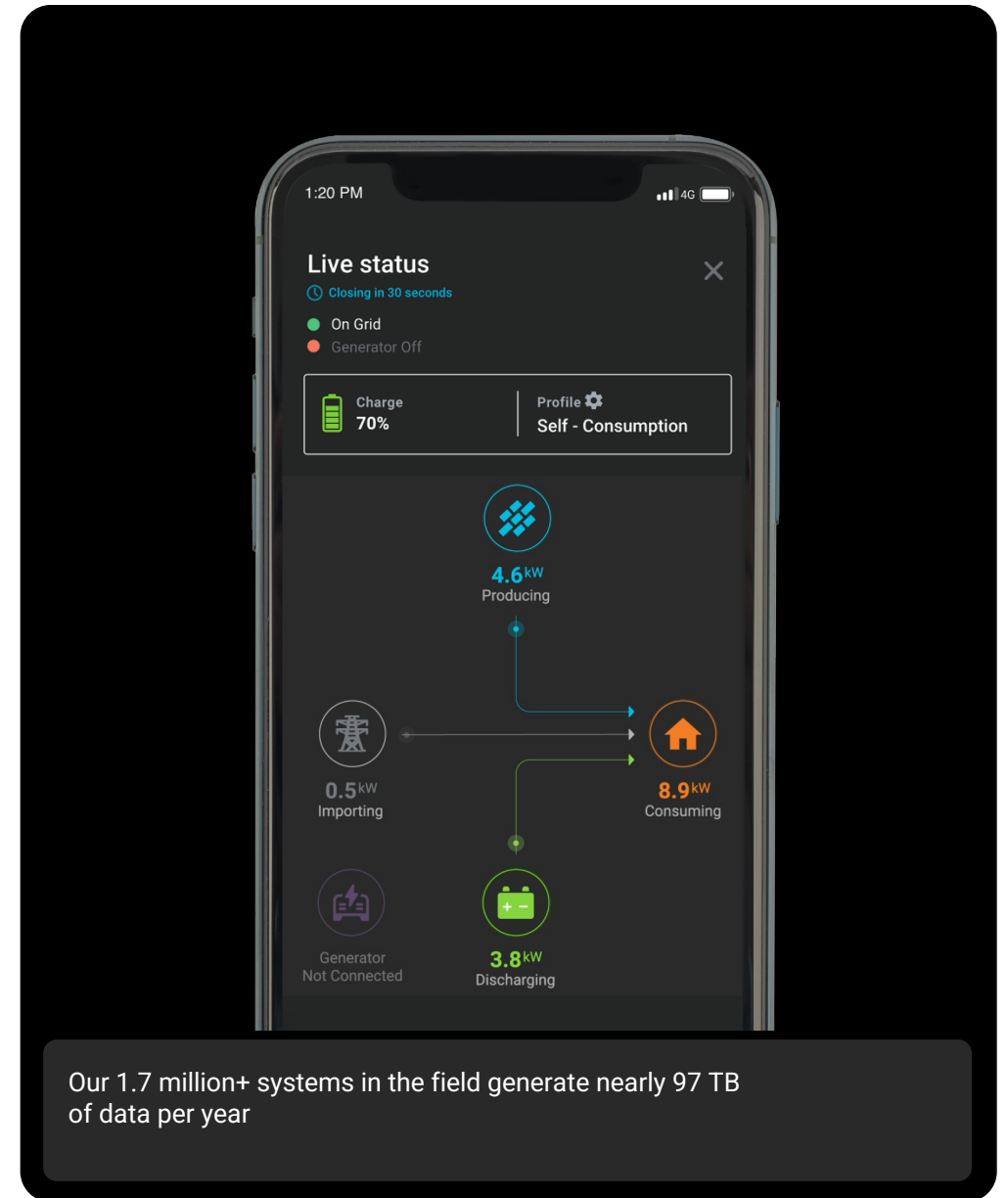
Autonomous decision making of DERs

IQ System Controller for on-site control

Seamlessly transfers control between grid forming and grid following resources

Enphase Cloud control for user settings

Full-fledged IoT system



Homeowner App / Grid Services Manager

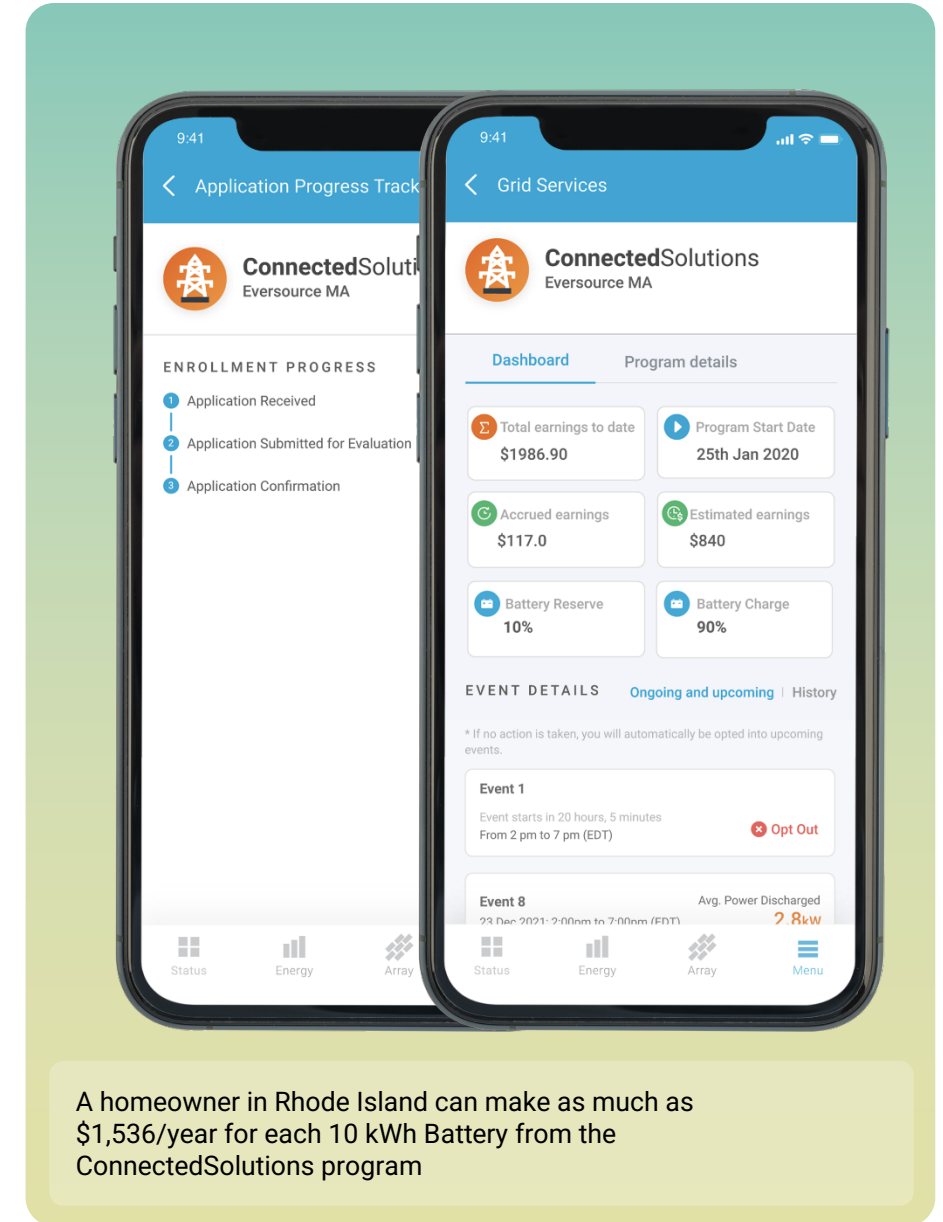
Self-serve user interface for Enphase homeowners subscribing to a grid services program

After enrolling in program, homeowner can monitor grid services event participation, opt-in / opt-out from events, monitor incentive payments received

Battery profiles can optimize homeowner experience for Grid Services event participation / incentives / resiliency

Grid Services Manager SaaS product allows utility partners to create and manage Virtual Power Plants

Improvement of localized power quality, load shifting to match renewable generation, optimization of solar and battery assets to support outage recovery



Key Opportunities for Building a Cleaner, Customer-Focused Grid

CCAs have a mandate for change

Cleaner, more affordable energy

Deployment of new technologies for decarbonization, resiliency, and customer cost-savings

Community-focused planning and investment

And a chance to build best-in-class programs

Reach priority customers effectively

Meet compliance obligations using new approaches that reduce uncertainty and better utilize full capabilities of new technologies (e.g., Load Modification Approach for RA)

Leverage best practices to create clear customer value prop and drive scale:

- Adopt 8.5 x 11" principle for program design
- Pay for performance – clear, consistent, simple
- Allow stacking of incentives for services delivered
- Measure device performance at inverter
- Incorporate adders to make technologies affordable for full range and diversity of customers



Solar, storage, and controllable loads can be core building blocks for realizing these opportunities



How Do We Scale Quickly and Efficiently?

Expand scope of clean energy bonding/debt facility to additional resources and technologies

- Forward capacity contracts
- Additional price hedge / backstop for intermittent renewables from aggregated, dispatchable resources

Build out network of Community Resiliency Hubs – including VPP enablement

- How to ensure local governments / site owners / tenants all benefit from full value creation potential of deployed technologies, in addition to critical load backup?
- **How can we help scale turnkey offering of installation / O&M / grid services delivery?**

Move funds allocated to legacy programs toward grid-responsive, resilient technologies

- Consider applying to become Energy Efficiency program admin
- Build from MCE's success with recent EE program funding allocation - PeakFLEX is just the start!
- Advocate for further unlocking existing program dollars allocated to IOUs (e.g., \$150M EE budget) – **How can we assist?**

Thank you

Making solar smarter

High solar penetration on congested feeders leads to power quality and reliability challenges

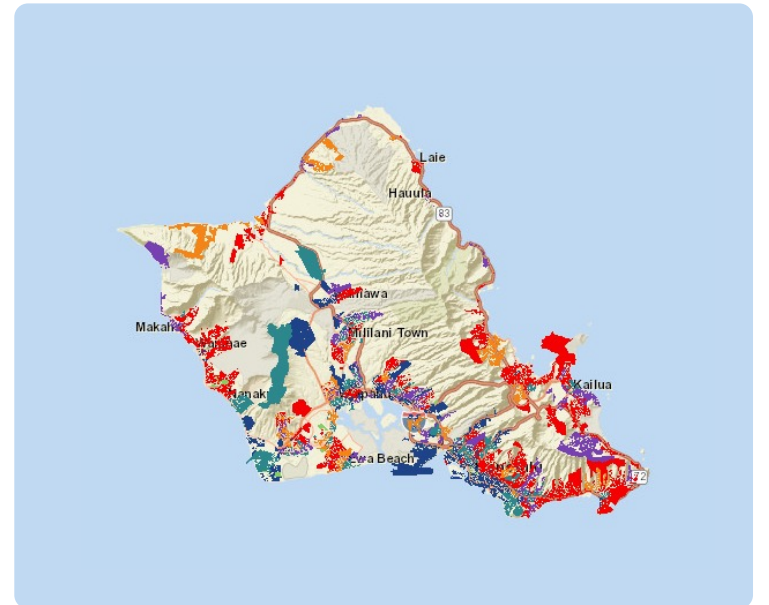
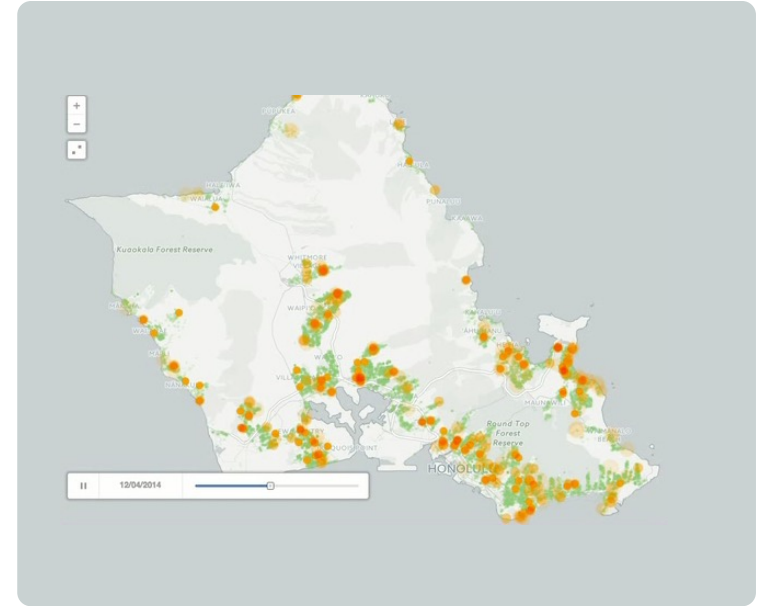
Identified voltage violations using data from 35,000 inverters on Oahu and adjusted settings to materially reduce

Remotely pushed firmware update allowing customers to ride through underfrequency and low-voltage events, saving HECO ~\$54M in truck roll costs

Leverage TB of customer system data to increase hosting capacity and ensure new solar + battery projects show up where adding most value

Retrofit solar systems with batteries to create new dispatchable capacity from existing resources

New IQ8 inverter will allow sunlight backup for customers who don't yet have a battery



Dispatchable Battery Portfolios

Partnerships with AZ Public Service, National Grid, Eversource, Cape Light Compact

Deliver shapeable load profiles based on utility peak load identification / demand response instructions

Provide low-latency, high-frequency data to support program performance monitoring and evaluation

Connect customers with value from program participation – make batteries more affordable and accessible

