



Energy Storage.  
Clean and Simple.

# Clean energy systems need **clean batteries**

**Introducing the first clean and sustainable battery**



# Our batteries are different.

## How We Stack Up

AHI batteries are a safe, environmentally friendly, long-lasting, and easy-to-use alternative to lead acid and lithium ion. They'll give you and your customers a hassle-free experience, peace of mind, and pride in their new clean energy storage system.

### TECHNOLOGY COMPARISON

	AHI	Li-ion	PbA
System Life	●	●	●
Maintenance	●	●	●
Partial State of Charge	●	●	●
Temperature Tolerance	●	●	●
Safety	●	●	●
Sustainability	●	●	●
Energy Density	●	●	●
Power Delivery	●	●	●
System Cost	●	●	●

## Hassle-free



## Peace of Mind



NON-FLAMMABLE  
NON-EXPLOSIVE



## Robust Performance



TEMPERATURE  
TOLERANT



TOUCH SAFE



PSOC  
CYCLING TOLERANT



LONG LIFE

Partial State of Charge (PSOC) cycling is a common profile in solar applications. PSOC cycling is known to rapidly degrade lead acid batteries.



- + At Aquion Energy, we manufacture clean saltwater batteries.
- + Our Aqueous Hybrid Ion (AHI™) batteries have a unique environmentally-friendly electrochemical design, and are the first and only batteries to be Cradle to Cradle Certified.™
- + AHI batteries contain no heavy metals or toxic chemicals and are non-flammable and non-explosive, making them the safest batteries in the world — designed for use in pristine environments, island locations, homes and businesses.

## AHI Battery Chemistry

BASE OXIDE



Manganese Oxide Cathode

COTTON



Synthetic Cotton Separator

CARBON

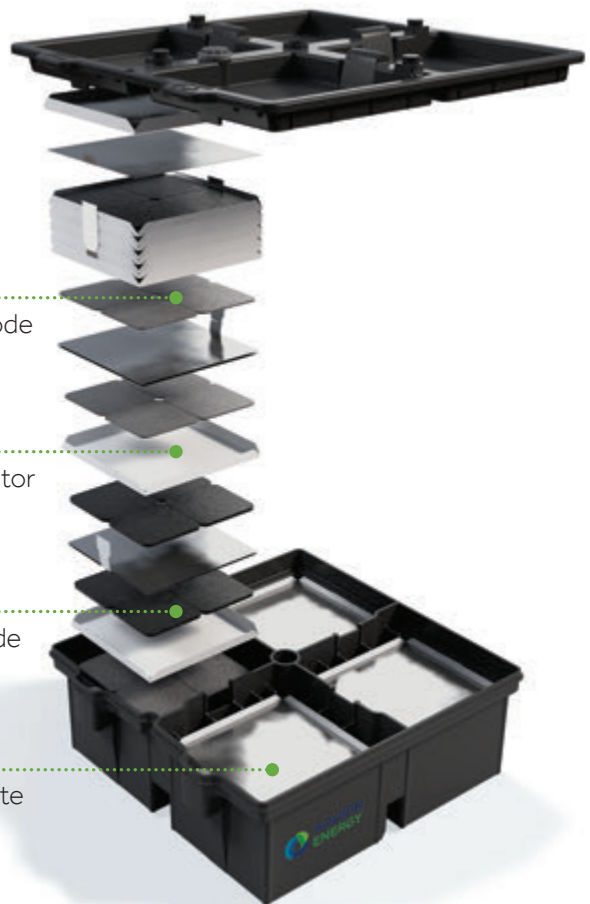


Carbon Composite Anode

SALTWATER



Sodium Sulfate Electrolyte



# Clean Batteries for Renewable Energy

## S-LINE BATTERY STACKS\*

- + ~2 kWh
- + Nominal 48V output
- + Standard building block for flexible system design

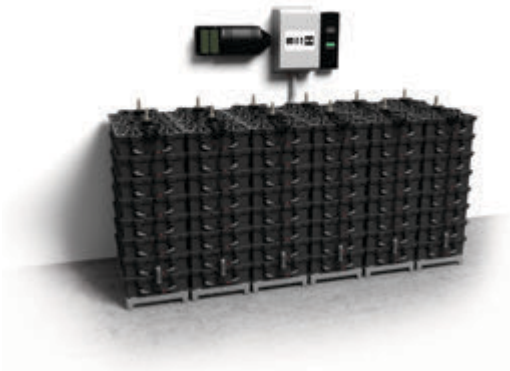


## M-LINE BATTERY MODULES\*

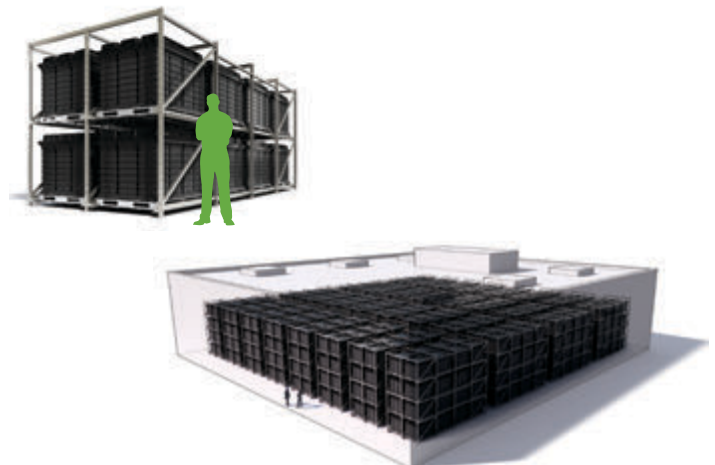
- + ~25 kWh
- + Nominal 48V output
- + 12 stacks in parallel
- + Pre-wired and forklift-ready for easy deployment



## STACK-BASED SYSTEMS



## RACKED MODULE-BASED SYSTEMS



\* See product specification sheets for details.



## RESIDENTIAL SOLAR

**Solar Self-Consumption:** Store and consume all the solar energy you generate

**Backup Power and Islanding:** Use storage to ensure you have critical power during grid outages

**Time of Use Optimization:** Control energy costs by using energy stored in batteries during the highest-cost daytime grid hours

**Demand Charge Reduction:** Avoid peak demand charges by dispatching energy from your battery system to keep below the peak power threshold



## OFF-GRID AND MICROGRIDS

**Solar Self-Consumption:** Increase use of renewables and reduce reliance on fossil fuels

**Islanding with Renewables:** Store energy for later use to enable islanding and independence from the grid

**Power Quality:** Ensure access to critical power, manage intermittency and ensure stability



## ENERGY MANAGEMENT

**Demand Response:** Shift energy use from the grid to batteries at times of high demand

**Backup Power:** Use storage to ensure you have critical power during grid outages

**Peak Shaving/Demand Charge Reduction:** Use batteries to avoid peak power demand charges

**Solar Self-Consumption:** Store energy generated on-site to maximize use of renewables and offset using energy from the grid during peak times

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# Select Aquion Energy Global Installations

**BAKKEN HALE**  
1 MWh  
Kiholo Bay, HI, USA



**NIDON**  
12 kWh  
Aiea, HI, USA



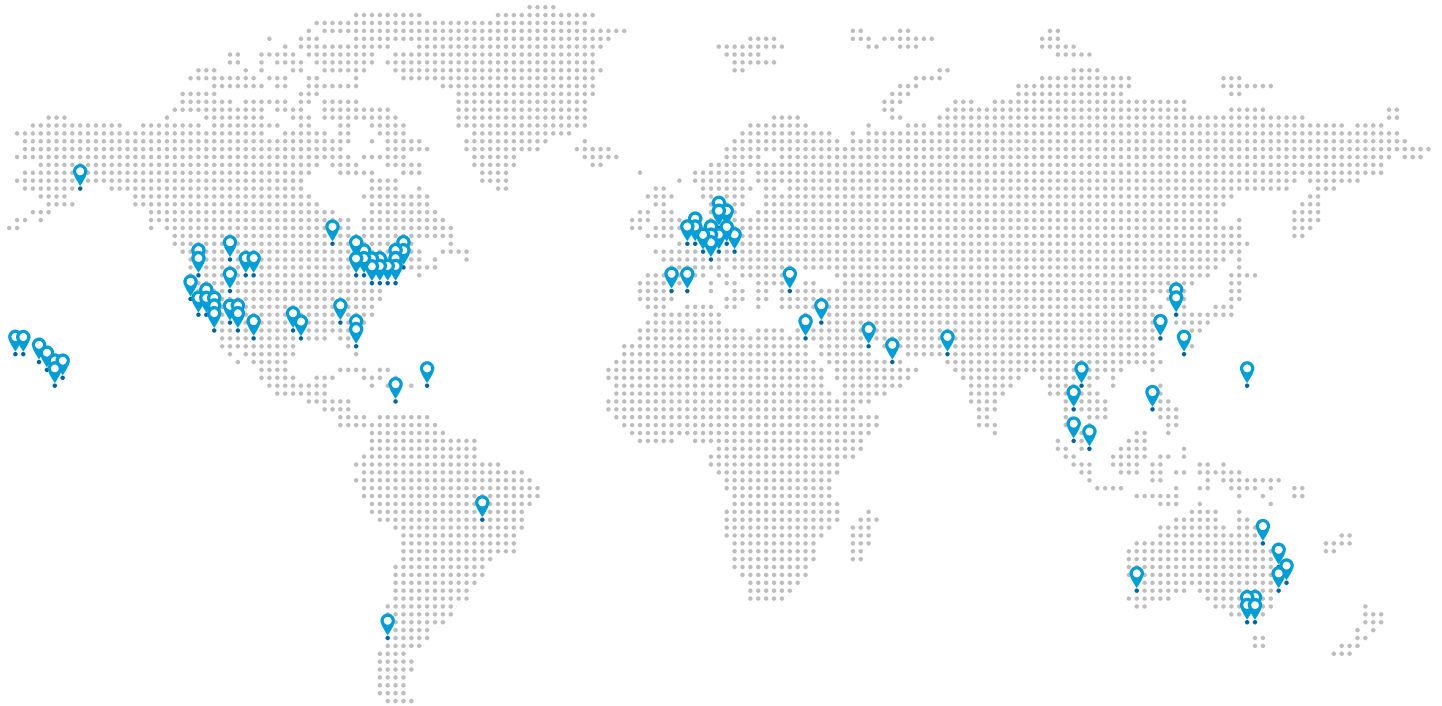
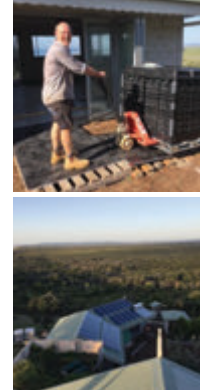
**REDWOOD GATE RANCH**  
20 kWh  
Jenner, CA, USA



**QINOUS**  
80 kWh  
Berlin, Germany



**BLITZABILITY**  
22 kWh  
Brisbane, Australia



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32 39th Street  
Pittsburgh, PA 15201  
412.904.6400

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Mount Pleasant, PA 15666

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