



Energy Storage.
Clean and Simple.

Clean energy systems need **clean batteries**

Introducing the first safe and sustainable battery



What's inside matters.

- + At Aquion Energy, we make clean and safe saltwater batteries.
- + Our Aspen battery series is based on our patented Aqueous Hybrid Ion (AHI™) chemistry, which has a unique environmentally-friendly electrochemical design.
- + Aspen 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

STAINLESS STEEL



Stainless Steel Current Collector

BASE OXIDE



Manganese Oxide Cathode

COTTON



Synthetic Cotton Separator

CARBON

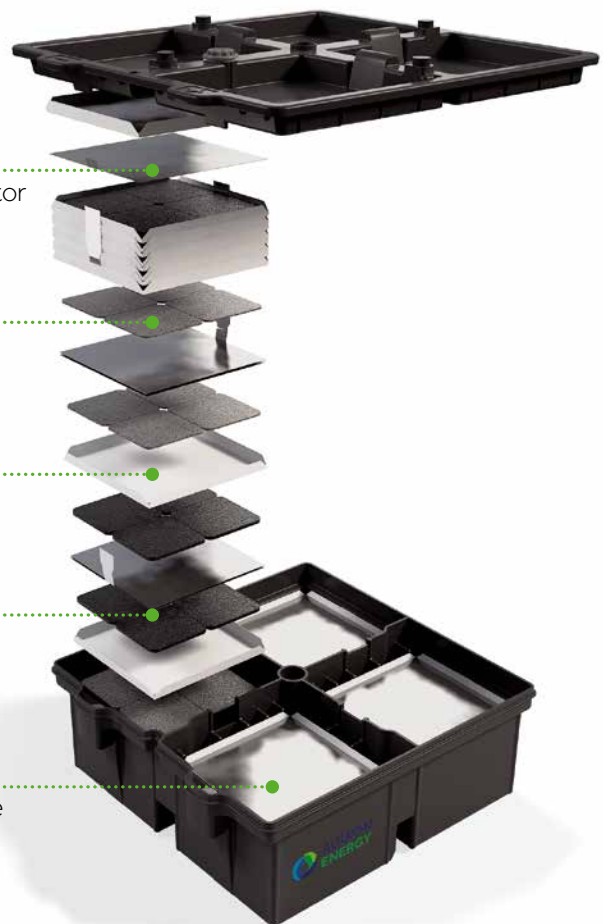


Carbon Titanium Phosphate Composite Anode

SALTWATER



Alkali-ion Saltwater Electrolyte



Meet the Aspen battery.

ASPEN 48S*

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



ASPEN 48M*

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



System Configuration Examples

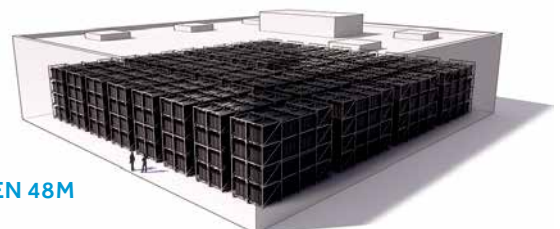
12 x ASPEN 48S



16 x ASPEN 48M



2,048 x ASPEN 48M



* 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

Our batteries are different.

How We Stack Up

Aspen 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



PARTIAL STATE OF CHARGE
CYCLING TOLERANT



LONG LIFE

Cradle to Cradle Certified™ is an independent, third-party verified certification program that assesses products and materials for safety to human and environmental health, design for future use cycles, and sustainable manufacturing. Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute.

Select Global Installations

BAKKEN HALE
1 MWh
Kiholo Bay, HI, USA



NIDON
12 kWh
Aiea, HI, USA



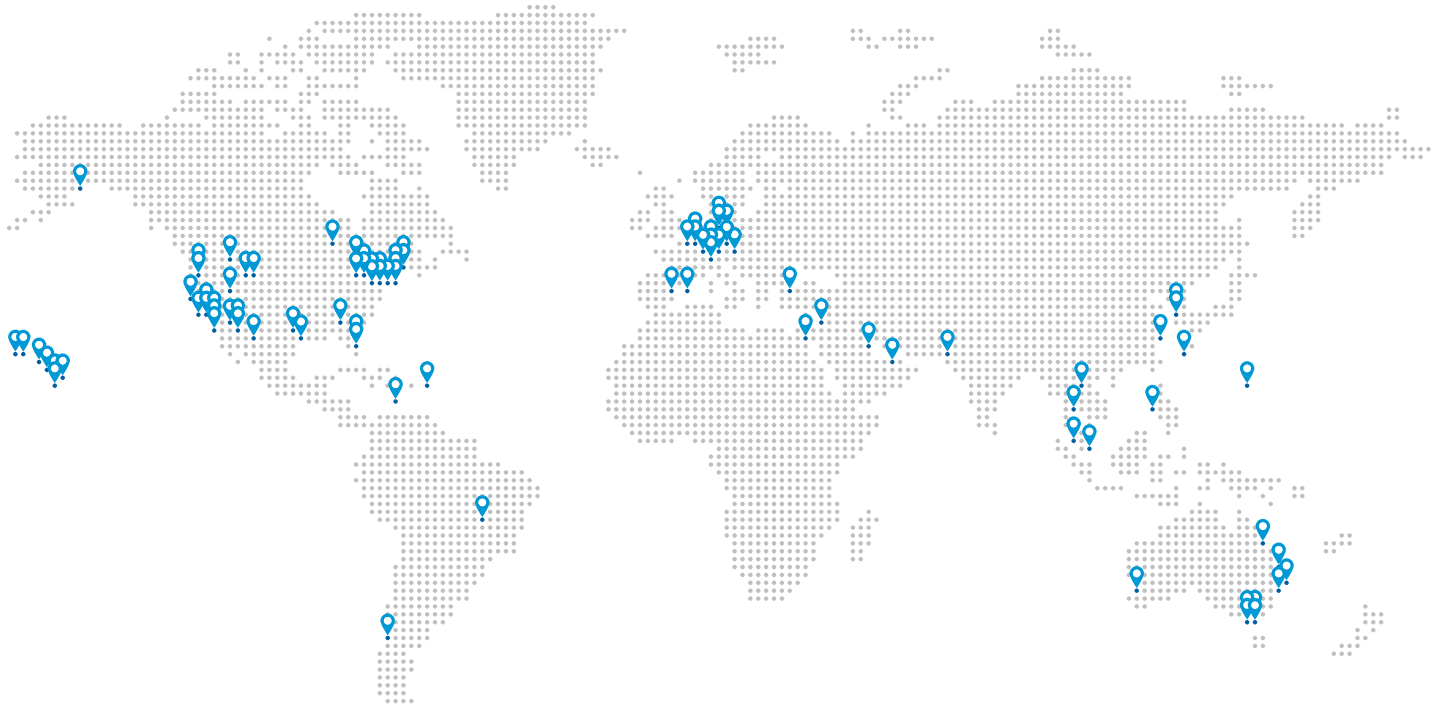
REDWOOD GATE RANCH
20 kWh
Jenner, CA, USA



QINOUS
80 kWh
Berlin, Germany



BLITZABILITY
22 kWh
Brisbane, Australia



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MANUFACTURING
1001 Technology Drive
Mount Pleasant, PA 15666

To contact our sales team, visit us at www.aquionenergy.com/how-buy

