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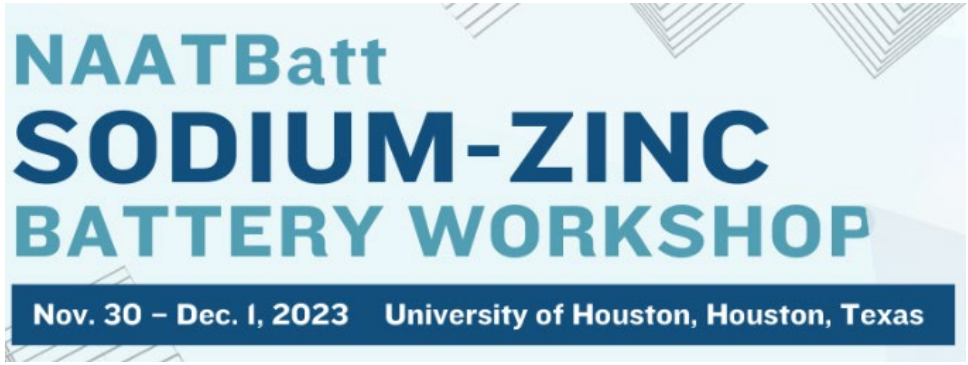
Sustainable Energy Storage
For Our Net Zero Future

Sodium solid-electrolyte batteries for stationary energy storage



The Problem

Incumbent Li-ion batteries will only get us so far

“Installing Li-ion indoors in New York City is a career-limiting decision”

Global Head of Sustainability and Energy – Top U.S. Bank

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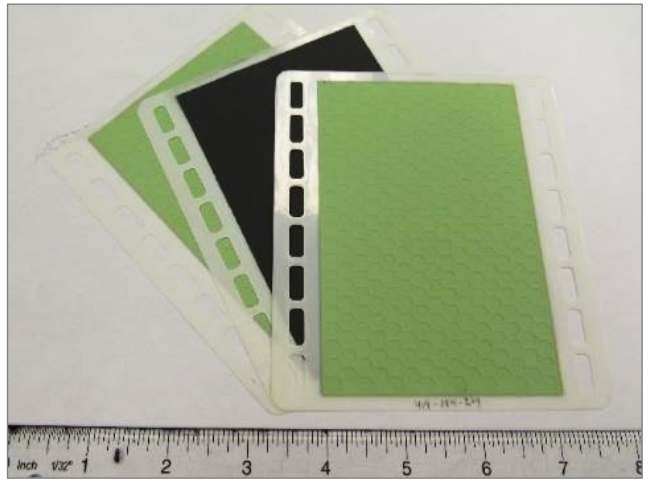
Approach

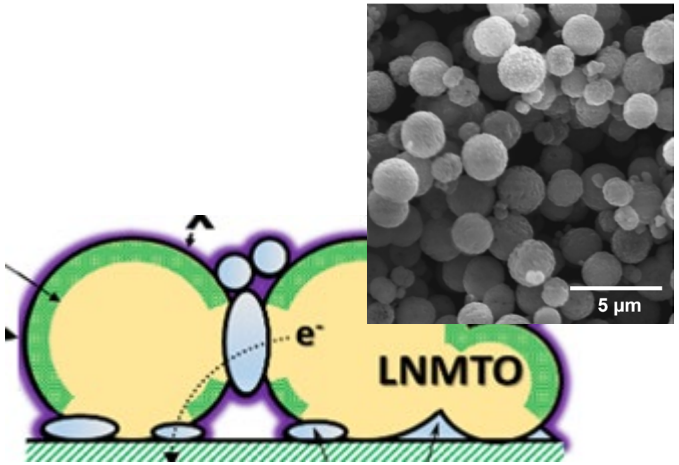
Manufacturing

SOFC Background



Business strategy

Li-ion Materials Synthesis



Market access

Li-ion Tamer Product

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Breakthrough Sodium-Based Energy Storage Product

0.5-1.5 MWh Turnkey ESS

NASS -1070 (20 ft)

Lower cost than Li

Safe

Sustainable domestic materials

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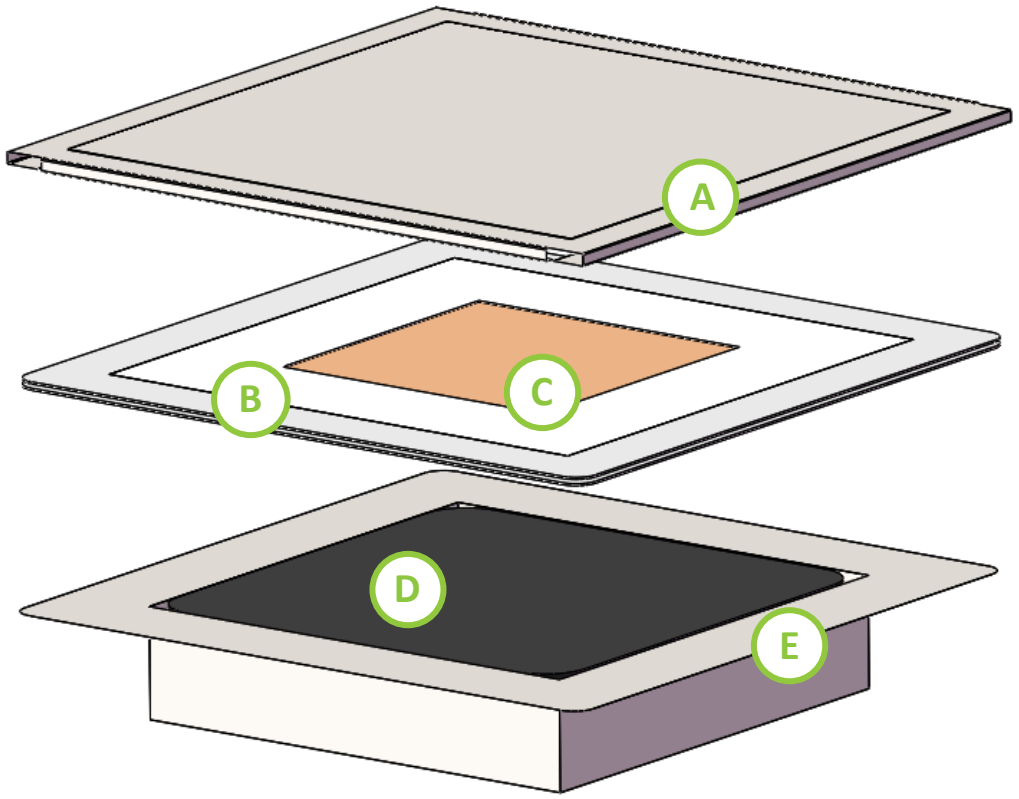
Adena's Cell Technology



A Anode
- Formed in-situ

B Sealing
- Simple polymer gasket

C Polymer-supported NaSICON electrolyte
- Thin, conductive substrate
- Mechanically robust

D Iron/salt cathode
- Capacity controlled by depth

E Cell-housing
- Low-cost and scalable

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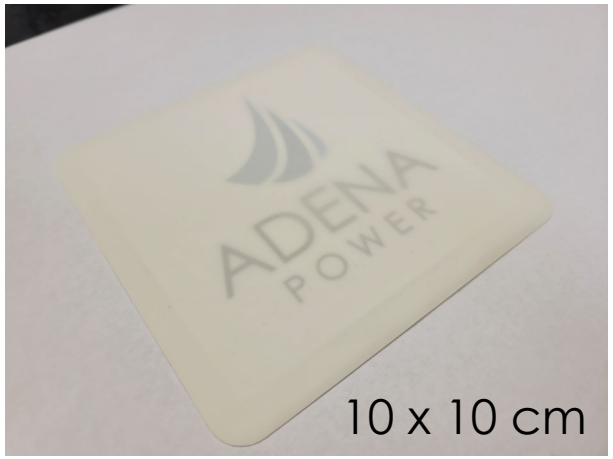
Technology Development Overview

Innovations and IP created throughout the process

Processing know-how

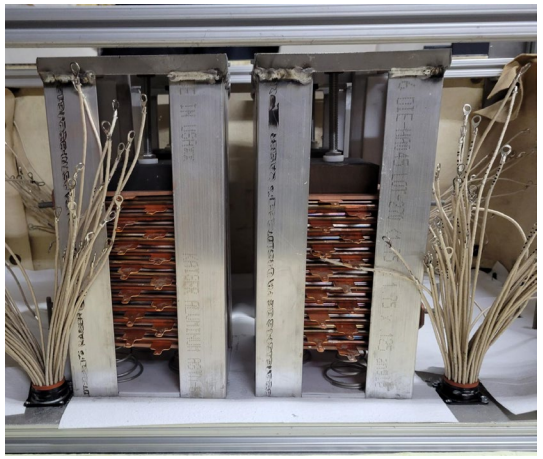
Vertical Integration

Defensible IP position

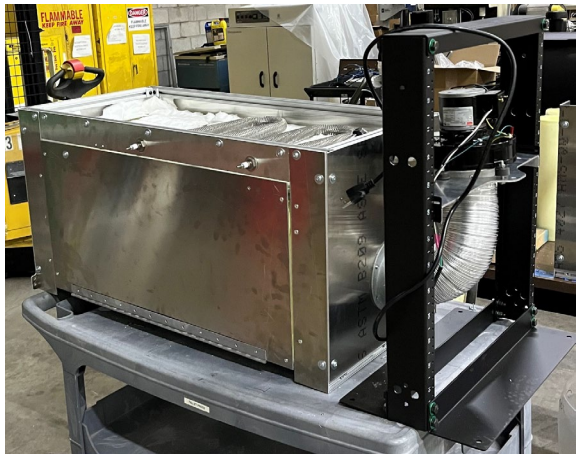


NaSICON membrane

8 Ah Cell



Cartridge



3.5 kWh Module

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Module Validation Demonstration

Module validation at Ohio State University

- Battery Management ✓
- Thermal Management ✓
- Performance ✓
  In progress – complete Dec. 23

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Application Intent Field Demonstrations

Demonstrations with utility partners to support C&I buying decision

DUKE ENERGY®

15 kWh system demonstration

incubateenergy labs

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Product Evolution

Product Roadmap

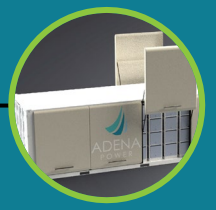
2023

MVPRO module
1 kWh

OSU Building
Block Validation

2024

Duke Demo
15 kWh System



~ 75 kWh product-intent demo

Product Launch

Manufacturing Roadmap

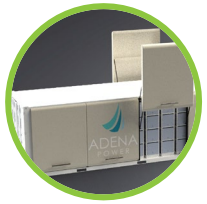
Industrialization Partner	Under-utilized assets Fast, CAPEX-lite scale-up
NEXCERIS where energy meets environment	Current infrastructure Cross-functional resources

2023

0.1 MWh/year

50X

End 2024



5 MWh/year

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Achieve a Net Zero Future with Adena Power

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