



Overview

Q1 2025

Liquid Metal™ battery – A superior technology for grid energy storage

Ambri is the only company in the world commercializing this groundbreaking calcium-antimony battery technology

Superior operating performance

20+ year useful life with <5% degradation

80-90% round-trip efficiency

Compelling economics

Lithium-ion total cost of ownership can be up to 45% higher

Reliable & extremely safe

No thermal runaway, passed UL safety certification

Non-flammable electrolyte, no moving parts

Scalable

Attractive for the world's largest renewable projects

Modular ~1 MWh system blocks

Proven technology

500 °C operation enables use of low-cost materials and robust liquid metal electrode

Tested and validated by independent third-parties

Currently producing cells for customer systems

Energy
Storage +
System



**Liquid Metal
battery cell**

(~1 kWh)



**Tray:
32 cells**

(~30 kWh)



**System:
40 trays per 20' shipping container**

(~1 MWh)

Ambri technology is proven and ready to scale



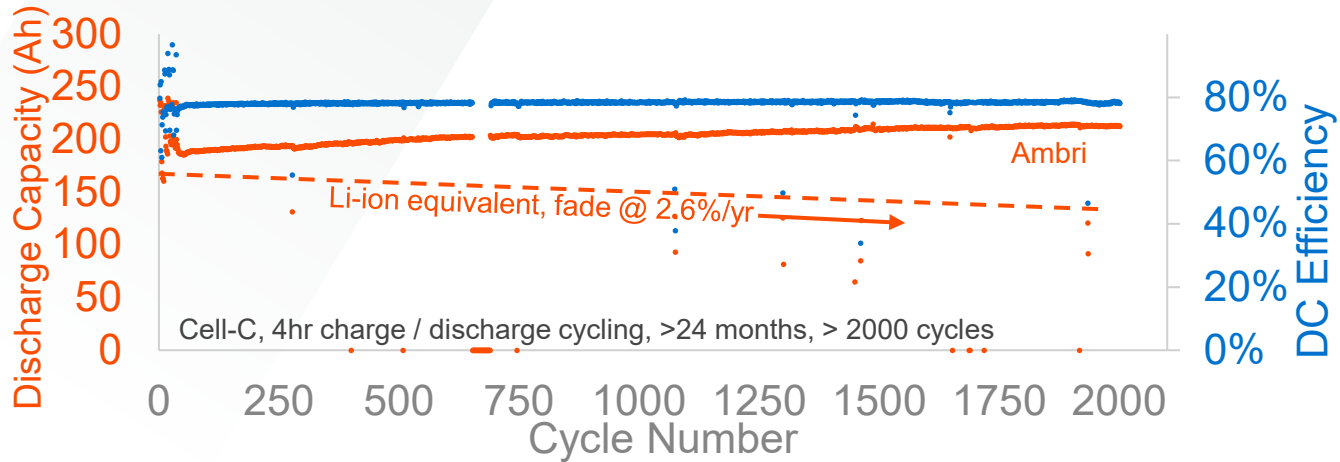
>2,000
full discharge cycles, no
capacity fade,
equivalent to ~7 years of
typical use



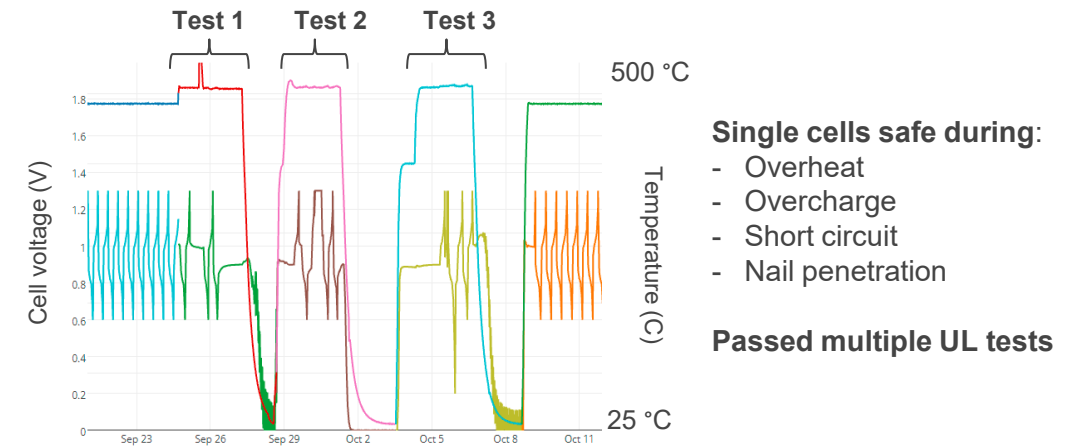
Validated
by independent third-
party performance and
safety tests

Strong Value Proposition vs. Li-ion

<0.25% vs. 2.6% degradation per year for Li-ion



Inherently safe whereas Li-ion requires fire controls



Benefits

- Lower cost, 20-year battery system without need for augmentation
- Easier permitting for developer due to safer battery system
- More revenue for battery owner due to lower degradation

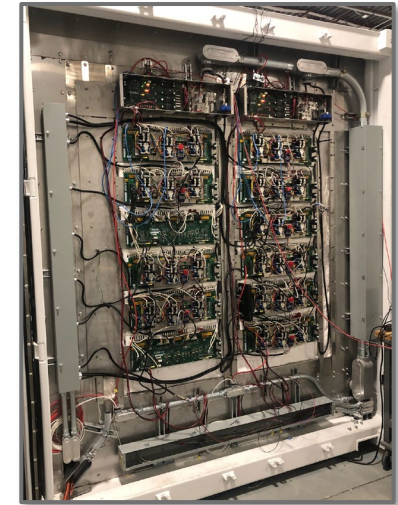
Case study – Microsoft

Currently operational pilot demonstrating commercial viability of Ambri systems for data center usage

Overview

- Ambri's **first commercial pilot** with Microsoft has been highly successful
- Deployment of prototype Ambri system to **support a Microsoft data center**
 - 10 kW / 40 kWh pilot system capacity
- Operational testing began in September 2022 with **excellent results**:
 - >350 cycles achieved over 7 months
 - Idle to full power in < 6msec–class 1 compliant
 - 76% to 87% efficiency from Cp/4 to Cp/8
 - 39.9 kWh average at Cp/4
 - 55.4 kWh average at Cp/8

Operational pilot system



Eliminates diesel generators



24 x 7
Renewable power



Higher
Reliability

Similar but better than Lead Acid for Grid Energy Storage



	Heavy Duty Deep Cycle	Liquid Metal™	
Size	24	E3	
Volume (L)	11.1	10.7	
Weight (lbs)	46	62	
Capacity (Ah – 10h)	75	1340	
Voltage (V)	12	1	
Energy (Wh)	900	1139	+27%
Vol. energy density (Wh/l)	81.1	106.4	+31%
Cycle Life to 50% DoD	2000	>7300	
Cycle Life to 100% DoD	<1000	>7300	

Cycle life to 10% DoD and energy density are important to grid-scale energy storage market



Thank you

Contact Ambri for further information

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