



ENSURGE™

Half Yearly 2022 Preliminary Report

24 August 2022

Kevin Barber

CEO



Safe Harbor Statement

This report includes forward-looking statements covered by the Private Securities Litigation Reform Act of 1995. Because such statements deal with future events, they are subject to various risks and uncertainties and actual results for fiscal year 2021 and beyond could differ materially from the Company's current expectations. Forward-looking statements, including estimates of capacity, selling price and other material considerations, are identified by words such as "anticipates," "projects," "expects," "plans," "intends," "believes," "estimates," "targets," and other similar expressions that indicate trends and future events.

Factors that could cause the Company's results to differ materially from those expressed in forward-looking statements include, without limitation, variation in demand and acceptance of the Company's products and services, the frequency, magnitude and timing of raw-material-price changes, general business and economic conditions beyond the Company's control, timing of the completion and integration of acquisitions, the consequences of competitive factors in the marketplace including the ability to attract and retain customers, results of continuous improvement and other cost-containment strategies, and the Company's success in attracting and retaining key personnel. The Company undertakes no obligation to revise or update forward-looking statements as a result of new information, since these statements may no longer be accurate or timely.

Ensurge financial reports and presentations may be accessed online at <https://ensurge.com/investor-relations/>

First mAh Solid-State Lithium Microbattery*



Ensurge microbattery unique benefits

- Higher energy density – 2X
- Customizable form factor



Benefits of solid-state vs. Li-Ion

- Fast charge – 3X
- High pulse discharge - 5X+
- Charge cycles – 2X+



* mAh and microbattery refer to 1-100 mAh capacity required by a range of personal electronics, medical devices and IoT connected sensors

Our Twin Go-to-Market Strategy

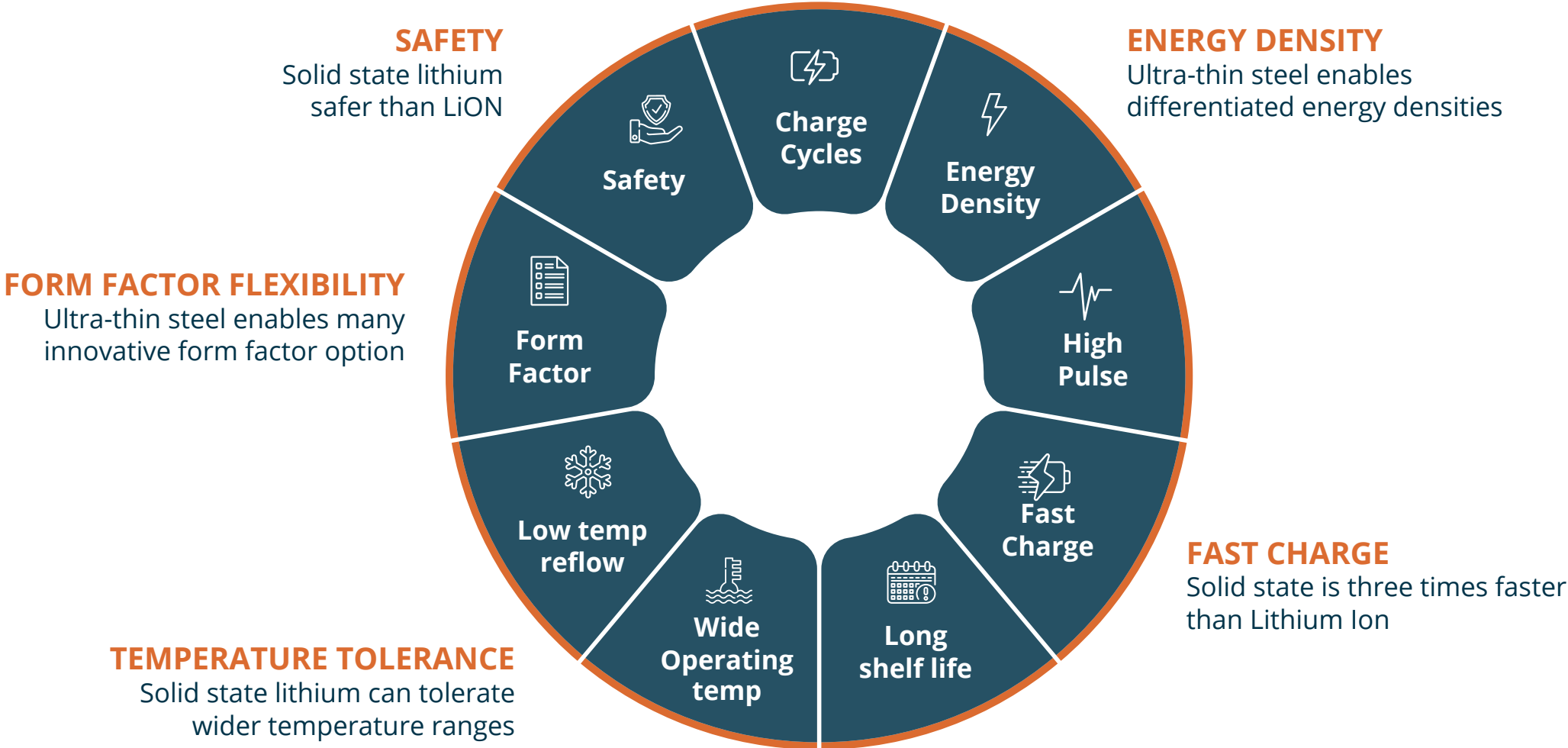
Strategic Partners

- Driven by major technology companies enquiring on our core cell performance
 - Consumer device & battery manufacturers
 - Active discussions with four companies
- Interest utilizing our core cells...
 - In combination with their battery packaging or
 - By jointly developing unique solutions
- Technology commercialization
 - Licensing model
 - Up front and on-going NRE and/or equity investments
 - Manufacturing rights, thru royalty and/or investment

Commercial Customers

- Wearable, hearable and Industrial IOT markets focused on innovative solutions
 - End market devices incorporating microbatteries
 - Five signed agreements and two dozen more engaged
- Interest in customized complete battery
 - Require performance or form factors not available
 - Fast charging, energy density, and form factor matter
- Product commercialization
 - Product sales of manufactured batteries
 - NRE development for product application support and customization

Value Propositions Driving **BOTH** Strategic and Customer Engagements



Significant Progress during Q222



Strategic Partners

Discussions with four major technology companies

Established new path for technology commercialization

Building coin cells with our unit cells now

Initial builds will be completed in next few days

First shipments within next 2 weeks



Commercial Customers

Added 12 new customers to our pipeline of active engagements

USA FDA approved hearing aids can be sold “over-the-counter”; the FDA estimates addresses 30M underserved hearing impaired

Our customers continue to engage with us defining their products and solutions with Ensurge batteries



Technology Progress

Implemented interfacial engineering breakthroughs – knowledge which can also be translated to large-scale solid-state batteries

Significantly lowered impedance improving consistency of cycling and energy capacity



2022 Ongoing Focus

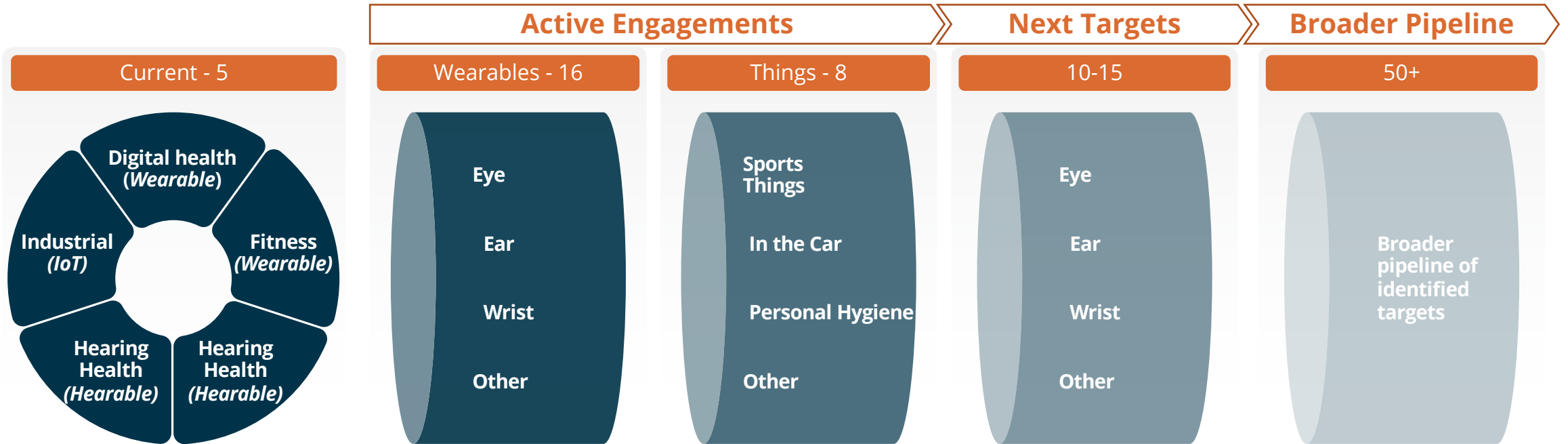
Strategic partner and commercial customer commercialization in parallel

Deliver coin-cell samples to potential strategic partners within two weeks

Deliver initial stacked samples to customers

Operational readiness for production deliveries

Customer Engagement



From samples to production...

Helping customers build boards for Ensurge microbatteries now

Provide initial samples to signed customers

Broaden sample engagements

Support design-in of Ensurge microbattery

Deliver product in-time for customer ramp

Novel Microbattery Architecture

Ultra-thin 10 μ m steel substrate

- High energy density
- High mechanical strength

Innovative cell-stacking & packaging

- Maximizes energy density
- Customizable
- Contacts for direct PCB connection



Roll-to-Roll manufacturing facility

- High throughput, low cost
- Conventional manufacturing environment

Established anode-less solid-state chemistry

- Lower cost
- 1000+ cycles
- Rapid charging and high pulse discharge

Q2 '22 financials

	Q2 2022	Q1 2022	Q4 2021	Q3 2021	Q2 2021
Beginning Cash:	\$11,674	\$6,853	\$13,050	\$7,053	\$9,418
Expenses (non-gaap):					
Operations	\$961	\$808	\$504	\$794	\$660
R&D	\$831	\$689	\$896	\$998	\$856
Sales & Marketing	\$163	\$215	\$181	\$213	\$226
G&A	\$1,519	\$1,434	\$1,489	\$1,228	\$1,409
Facilities	\$1,337	\$1,198	\$1,208	\$1,222	\$1,068
Total Operating Expenses	\$4,811	\$4,344	\$4,278	\$4,455	\$4,219
Cash Adjustments:					
Capital Purchases	\$39	\$302	\$225	\$399	\$1,077
Utica Payments (P&I)	\$1,311	\$1,311	\$1,311	\$2,863 ¹	\$563
Changes in Working Capital	\$(259)	\$18	\$383	\$320	\$(552)
Total Cash Adjustments	\$1,091	\$1,631	\$1,919	\$3,582	\$1,088
Total of Operating Expenses and Cash Adjustments	\$5,902	\$5,975	\$6,197	\$8,037	\$5,307
Proceeds of Offering	\$87	\$10,796	-	\$14,034	\$2,942
Ending Cash	\$5,859	\$11,674	\$6,853	\$13,050	\$7,053

1 - Utica principal "catch-up" payment in Q3 21'

Summary

First mAh solid state lithium microbattery



Novel architecture

- Superior energy density, lifetime, charging vs. Lithium-ion
- Customizable form factors
- 10µm steel substrate & innovative stacking/packaging



Strategic Partner path to commercialization

- Solid state core cell and ultra-thin steel key enablers
- Leverages all key technology value propositions



Billion-unit, ten-billion \$ addressable market

- Hearables, wearables, sensors
- Improves existing applications and enables new ones



Existing, production-grade factory

- \$40M equipment for high-capacity roll-to-roll mfg.



Barriers to entry

- Extensive IP
- Manufacturing know-how





Thank You