



**ENSURGE™**

# Q3 2022 Preliminary Report

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CEO

# Transforming the microbattery industry by delivering 1<sup>st</sup> mAh capacity solid-state microbattery\*

Targeting Wearables, Hearables and Connected Sensors (IoT) markets

*billions+ units market opportunity*

## Ensurge microbattery unique benefits

Higher energy density – 2X

More energy capacity in same space or smaller battery for same energy capacity

Customizable form factor

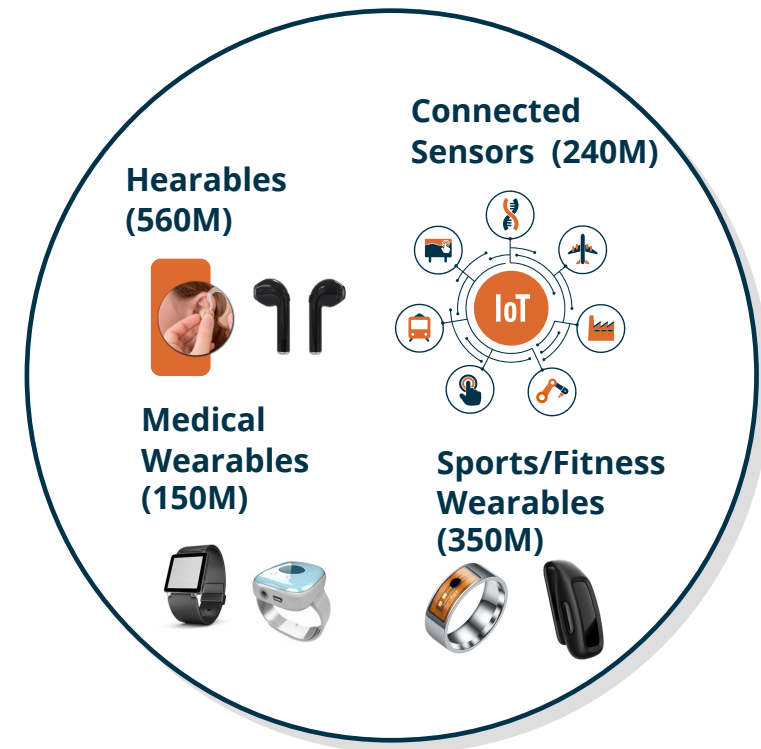
Optimized for customer device needs

## Benefits of solid-state vs. existing 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

# Strong momentum last 3 months

- Shipped first packaged battery samples to one of our customers, a leading hearing aid company
- Shipped packaged battery samples to innovative digital health device company with demand forecasted for Q1'23
- Shipped high performing unit cells samples to three strategic partners
  - A world leading consumer electronic and communications company
  - Two world leading battery manufacturers
- In discussion with more than 20 new companies wanting our battery offering each representing >\$200M in product revenue potential
- Strong increase in the production rate of battery cells during Q3 and expected to increase further during Q4'22 and 2023

## Strong momentum last 3 months - 2

- Engaged in contract negotiations with a global leader in the information technology market
  - Funded technology development to deliver technology attributes beyond Ensurge's current roadmap
  - Technical objectives are defined to meet the demands of their aggressive wearable device roadmap achieving dramatic improvements of usability & ease of use
- Anticipate strategic partners to start funding co-development efforts during Q123

# Q3 '22 financials

	Q3 2022	Q2 2022	Q1 2022	Q4 2021	Q3 2021
<b>Beginning Cash:</b>	\$5,859	\$11,674	\$6,853	\$13,050	\$7,053
<b>Expenses (non-gaap):</b>					
<b>Operations</b>	\$1,009	\$961	\$808	\$504	\$794
<b>R&amp;D</b>	\$829	\$831	\$689	\$896	\$998
<b>Sales &amp; Marketing</b>	\$257	\$163	\$215	\$181	\$213
<b>G&amp;A</b>	\$1,435	\$1,519	\$1,434	\$1,489	\$1,228
<b>Facilities</b>	\$1,562	\$1,337	\$1,198	\$1,208	\$1,222
<b>Total Operating Expenses</b>	\$5,091	\$4,811	\$4,344	\$4,278	\$4,455
<b>Cash Adjustments:</b>					
<b>Capital Purchases</b>	\$110	\$39	\$302	\$225	\$399
<b>Utica Payments (P&amp;I)</b>	\$1,311	\$1,311	\$1,311	\$1,311	\$2,863 <sup>1</sup>
<b>Changes in Working Capital</b>	\$360	\$(259)	\$18	\$383	\$320
<b>Total Cash Adjustments</b>	\$1,781	\$1,091	\$1,631	\$1,919	\$3,582
<b>Total of Operating Expenses and Cash Adjustments</b>	\$6,872	\$5,902	\$5,975	\$6,197	\$8,037
<b>Proceeds of Offering</b>	\$5,700	\$87	\$10,796	-	\$14,034
<b>Ending Cash</b>	\$4,687	\$5,859	\$11,674	\$6,853	\$13,050

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

# Our Twin Go-to-Market Strategy

## Strategic Partners

- Partner with major technology companies
  - Engaged with two major consumer device companies
    - Focus on signing funded development agreements
    - Wearables & hearables requiring unique and proprietary technology development for their own products
    - Leverage Ensurge high energy density core cells
    - Product revenue potential: > \$500M per year
  - Engaged with two major battery manufacturers
    - Focus on signing licensing agreements or funded development agreements
    - Use cases: wearables, hearables and IOT
    - Product revenue potential: > \$500M per year
- Technology commercialization
  - Up front and on-going NRE and/or equity investments
  - Licensing model
  - Manufacturing rights, thru royalty and/or investment

## Commercial Customers

- Wearable, hearable and Industrial IOT markets focused on innovative solutions
  - Five signed agreements
    - Medical hearable (2), digital health, Fitness wearable, Industrial IOT
    - Product revenue potential: >\$50M per year
  - Two dozen more engaged
    - 16 wearables companies and 8 IOT companies
    - Product revenue potential: >\$200M per year
- Deliver customized complete batteries
  - 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

# Innovative microbattery architecture

## Ultra-thin 10 $\mu$ m steel substrate

- High energy density
- High mechanical strength

## Roll-to-Roll manufacturing facility

- High throughput, low cost
- Conventional manufacturing environment



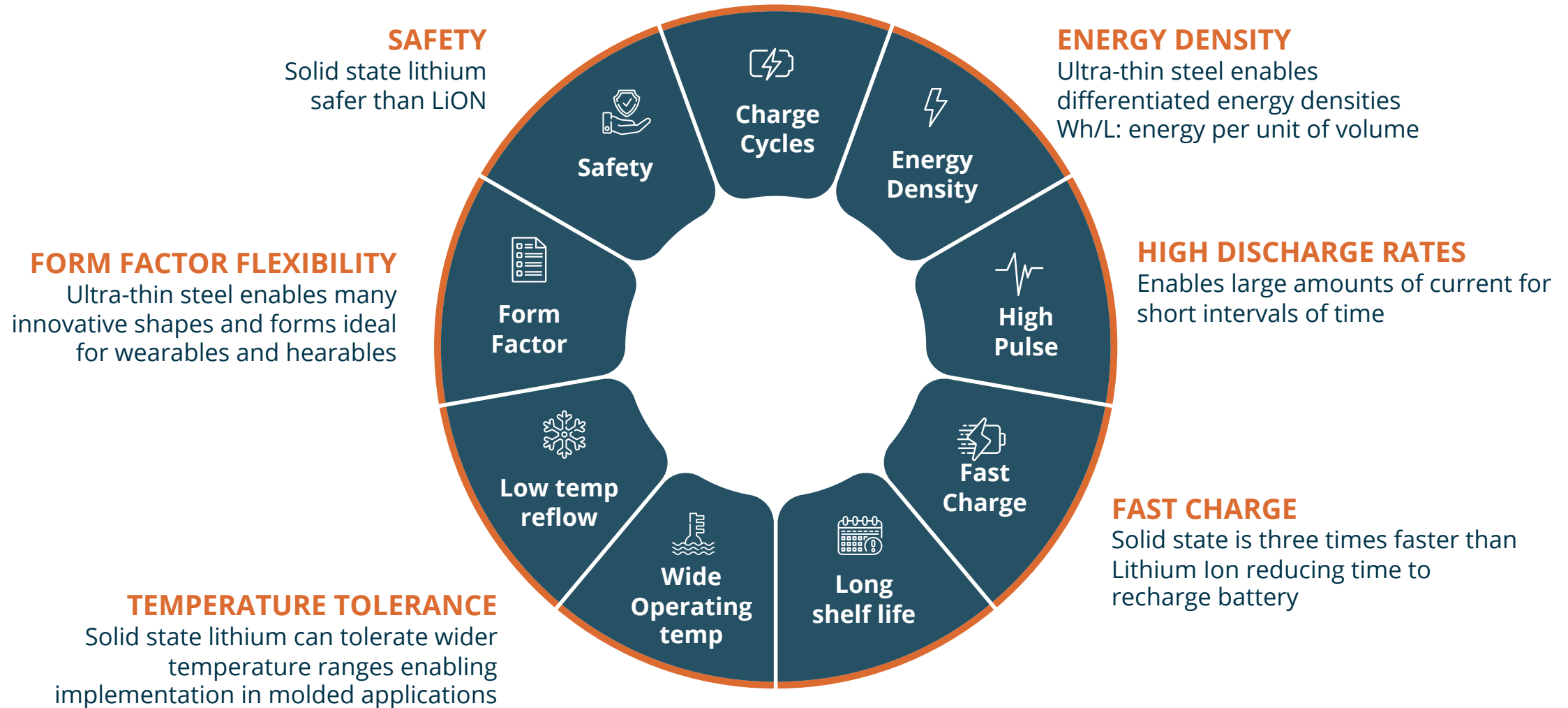
## Innovative cell-stacking & packaging

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

## Established anode-less solid-state chemistry





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

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





# Ensurge: performance and customizability, at scale

		energy density more battery life per unit volume	recharge cycles longer lasting hearables, wearables, sensors	charging speed improved user experience	safety no fire, explosion, heat risk	form factor enabling unique end products
	<b>Ensurge SSLB</b>	2x	2-3x	2x		rectangle ultra thin
	vs.					
	<b>Li-ion button cell</b>	1x	1x	1x		thick circle



# Summary

## First Solid-State mAh & 10's mAh Microbattery



### Roadmap fits the \$B market needs

- \$100M EBITDA from existing roll-to-roll manufacturing facility
- Experienced leadership and management team



### Targeting multiple BU, multiple \$B market

- Hearables, wearables, medical wearables, IoT
- Ensurge microbattery improves existing applications and enables new ones



### Novel Architecture

- Delivers superior energy density, customizable form factors, 2X charge cycles, fast charge and high pulse discharge
- 10µm steel substrate & innovative stacking/packageing



### Ready to deploy

- Significant progress achieved
- Production in Q4 2022





**Thank You**