e-Zinc

Long-Duration Energy Storage

Company Snapshot

Based in **Toronto, Canada**

Founded in 2012

80+ FTEs

Raised **>$35M in private financing**

Awarded **$8M in grants**

7 patent families with international coverage

First in-field deployment Q3 2022

2 projects secured for 2024 - 2025

James Larsen – CEO
15+ years of leadership in fuel cells, BD and consulting
Bain & Company, AMEC, MaRS Discovery District

Rhonda Landers – CFO
20+ years finance experience with multiple CFO roles
PwC, Globe Wireless, Wartsila, NanoSteel, Hedron

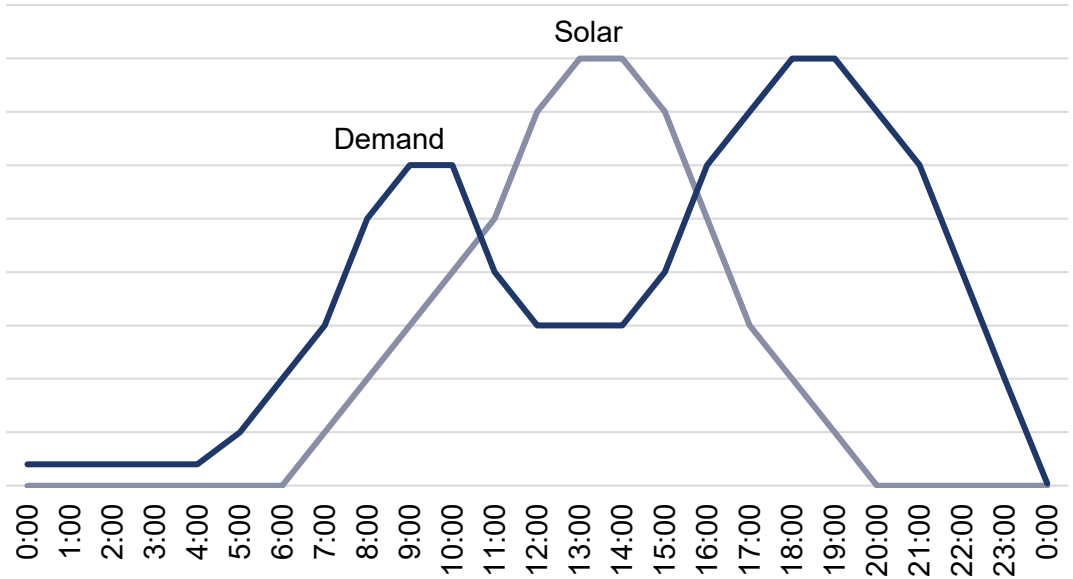
Balki Iyer – CCO & Executive Lead (US Expansion)
20+ years commercial leader in clean-tech and energy storage
General Electric, Enel Green Power, EOS

Rob Howard – COO
20+ years in automotive and solar operations leadership
General Motors, Chrysler, Enphase Energy

Zaki Kabir – CTO
20+ years scaling fuel cell and solar companies as a CTO
United Technologies, ClearEdge Power, Apeel

Laura Strickler - VP People & Culture
20+ years leading HR within multi-national organizations
Maple Leaf Foods, ADP

The Challenge: Scarcity and Curtailment



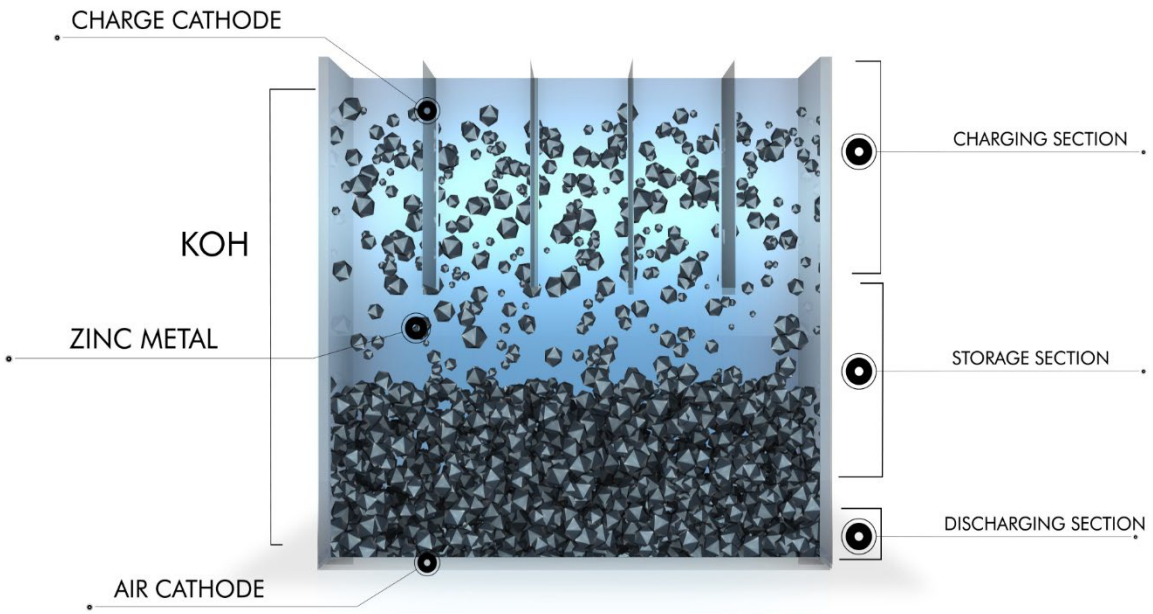
- Curtailment remains a major challenge for renewables – energy is wasted
- In 2020, ERCOT curtailed 4.9 TWh of wind and solar generation - equivalent to powering ~340k homes for 1 year
- In California in 2022, CAISO curtailed 1.9 TWh of solar generation, which is equivalent to powering 200k homes for a year
- SPP curtailed 7% of wind generation in 2022
- As more renewables deployed, challenge would become more severe if storage not deployed

Sources: BNEF, Wood Mackenzie, UNFCCC, IEA, McKinsey, Princeton, CAISO, SPP, NYISO

The Solution: LDES

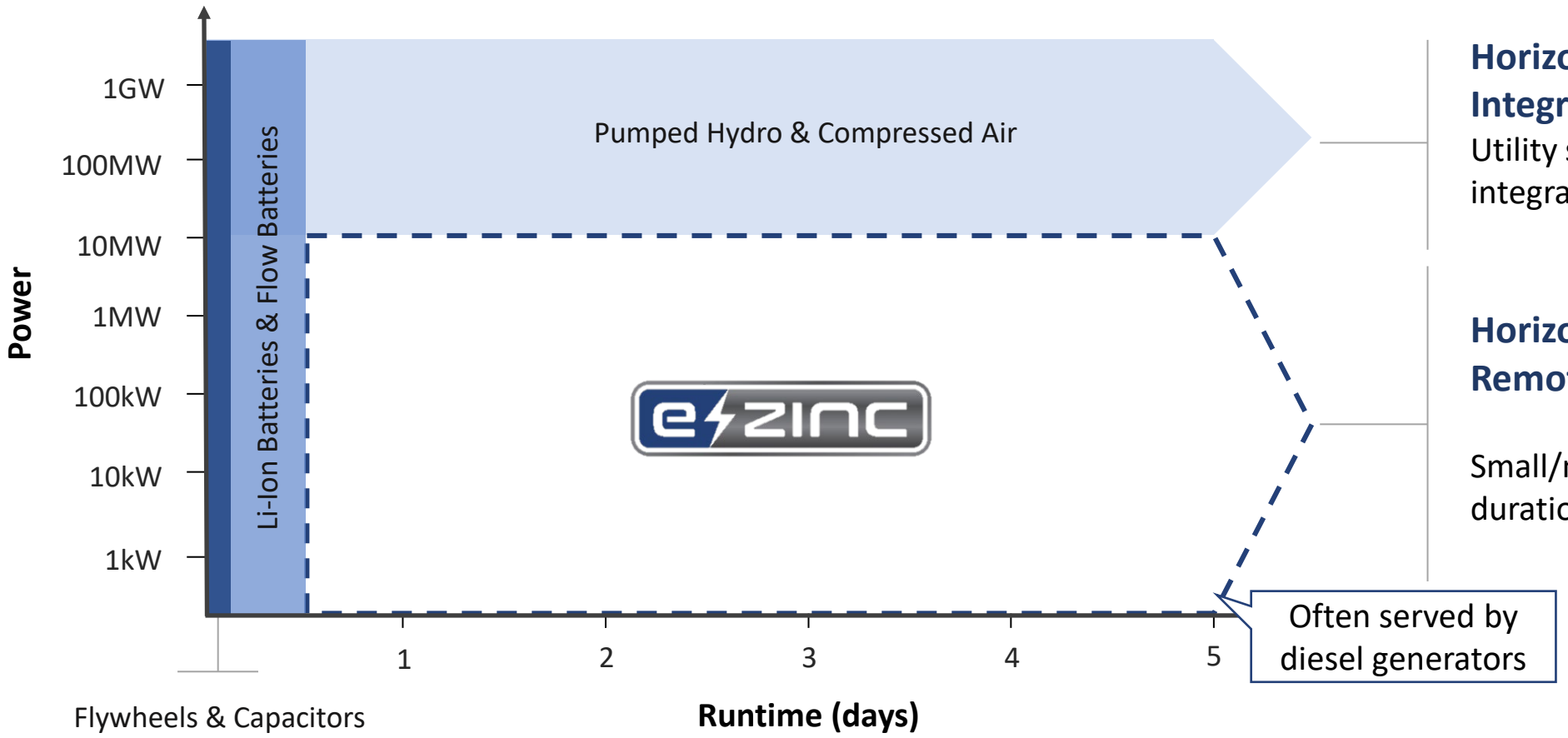
Our Technology

Zinc as an “energy carrier”



1. **Electrochemical cell with zinc-air chemistry**
2. **Stores energy through the creation of zinc as a metal**
3. **Low capital cost by decoupling energy capacity from power**

Market Opportunity



Horizon III: Renewables Integration

Utility scale FTM installations and integrations with renewables

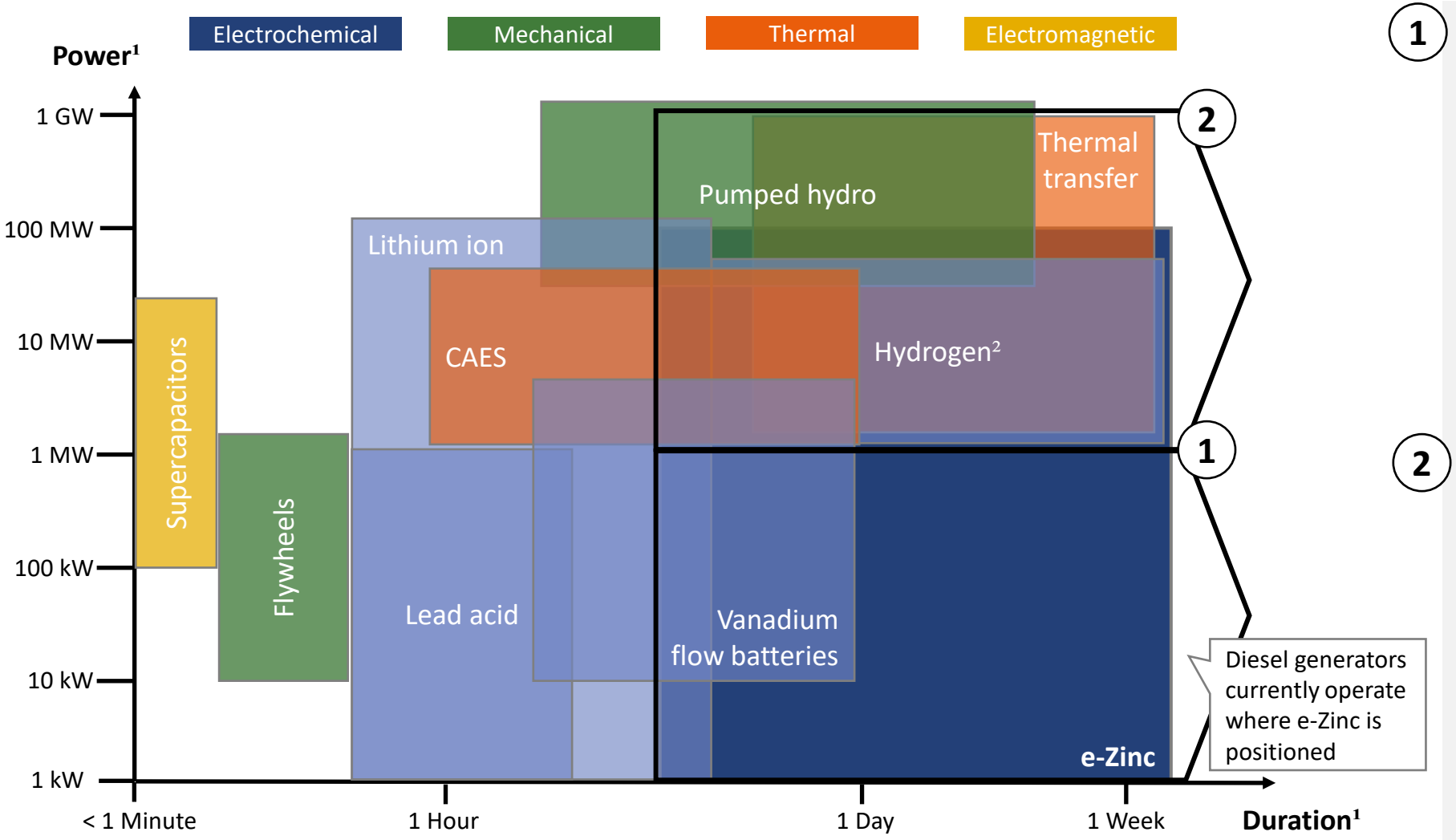
Horizon I & II: Resilience & Remote Microgrids

Small/mid-scale (<10MW) & long-duration (>10 hours)

e-Zinc's Horizons - Value Propositions

	Horizon I: Resilience	Horizon II: Remote	Horizon III: Renewables
Target customers	Commercial Industrial MUSH	Remote industries (mining, oil & gas, and telecom) Remote communities	Large-scale FTM projects: both standalone and renewable-paired
Value proposition	Customer Bill Management Wholesale Market Energy Arbitrage Resilience	Diesel Abatement 100% Clean Power Resilience	Renewable Time Shifting T&D Deferral Grid Resilience and Reliability
System sizes	10kW – 10 MW 10 – 48 hours	10 kW – 10 MW 10 – 100 hours	1 MW – 1 GW 10 – 100+ hours
e-Zinc differentiation	Ability to serve daily cycling needs for cost savings and revenue generation while reserving enough capacity to ride through single day/multi-day outages	Robust, safe chemistry that can perform multi-day dispatch in harsh environments to displace costly diesel and ensure efficient use of onsite renewables	Ability to time shift during periods of renewable lulls thus helping move toward a 100% renewable grid, reduce congestion and deliver energy to defer T&D upgrades

Competitive Landscape



1 Horizon I: Resilience and Horizon II: Remote

- **Power:** 1kW – 1MW
- **Duration:** Hours to days
- **Technologies:**
  - Diesel generators
  - Lead acid
  - Lithium ion
  - Vanadium flow batteries

2 Horizon III: Renewables Integration

- **Power:** 1MW – 100MW
- **Duration:** Hours to weeks
- **Technologies**
  - Pumped hydro
  - CAES
  - Hydrogen[2]
  - Thermal transfer

Source: Department of Energy Grid Energy Assessment 2020; McKinsey LDES 2021; Bloomberg NEF Lithium Ion 2021 Report; e-Zinc internal analysis; IEA; Company websites
Note: (1) Representative of the approximate powers and durations, not intended to be precise; (2) Hydrogen requires both a fuel cell and electrolyzer to act as a rechargeable battery

Competitive Advantages

Flexible & scalable

Scale energy capacity independently from power

Long lifetime

~15 years expected lifetime with minimal degradation

Fire safety

No risk of thermal runaway, obtaining UL certifications

Wide operating temperature

-30°C to 60°C operating temperature range

Low aux power

<0.1% of output power used for aux with no need for HVAC or liquid cooling

Recyclable / reusable

Commodity materials are fully recyclable at end of life

Roadmap

Preliminary

2023

R&D

- R&D testing and validation of the technology

2024

Pilot Scale Manuf.

- Progression of pilot scale manufacturing in Canada
- Exploration of U.S. facilities and sites for planned expansion

2025

U.S. Gigafactory Exploration

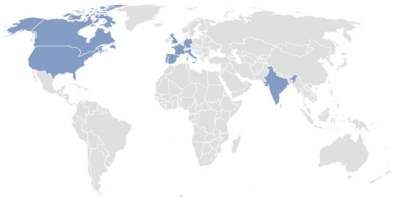
- State-wide evaluations
- Site considerations and discussions with EDO's etc.

2026

Phase 1 Gigafactory

- Opening of first commercial manufacturing facility in the U.S.
- Exploration of subsequent phases

2027+



Gigafactory +

- Fully scaled U.S. manufacturing
- Global expansion underway

Summary

1	**Safe and reliable technology**	No risk of thermal runaway and commodity materials
2	**Unique value proposition**	Provide 10-100+ hours of cost-effective storage
3	**Demonstrated history**	10+ years of R&D and active demonstration projects in-field
4	**Turnkey solution**	Ability to offer a fully integrated ESS solution to customers

“Metalized Electricity”

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