



# INTERIM RESULTS TO 30 JUNE 2022

September 2022

# Presenters



**Larry Zulch**  
Chief Executive Officer

- Avalon Battery (CEO)
- Savvius (CEO)
- Photometrics (Founder & CEO)
- Cloud Engines (CEO)
- EMC Corporation (VP & Officer)
- Dantz Development (Founder & CEO)



**Matt Harper**  
Chief Commercial Officer

- Avalon Battery (Founder & President)
- Prudent Energy (VP Products & Services)
- VRB Power Systems (Product Mgmt.)
- General Hydrogen (Product Engineering)
- MIT (Masters)



**Peter Dixon-Clarke**  
Chief Financial Officer

- Kuwait Energy plc (CFO)
- Hotspur Geothermal (CFO)
- Rockhopper Exploration plc (CFO)
- Help for Heroes (CFO)
- Amlin Insurance plc
- Deloitte

# HY 2022 Financial Highlights

**£1.4m**

Recognised revenue in H1 2022

**3.4 MWh**

Shipped during H1 2022

**£12.9m**

Closed sales backlog

- Period-end inventory of £10.9m, including prepaid inventory (HY 2021: £8.0m)
- Period-end cash of £16.1m (HY 2021: £10.9m)
- The Group remains debt free, excluding leases (HY 2021: £nil)

# HY 2022 Financial Highlights

Profit & Loss	£m
Revenue	1.4
Cost of sales	(3.7)
	(2.3)
Admin expenses: staff costs	(4.4)
Admin expenses: other	(4.5)
Other operating income & expense	(0.9)
Finance costs & foreign exchange	0.5
	(11.6)

Balance Sheet	£m
Non-current assets	24.1
Inventory	5.8
Prepaid inventory	5.1
Other assets	3.6
Cash	16.1
	57.5
Trade & other payables	(4.8)
Contract liabilities	(5.0)
Lease liabilities (current & non-current)	(1.7)
Provisions	(5.8)
	(17.2)
	40.3

# HY 2022 Financial Highlights

Cash flow	£m
Loss after income tax	(11.6)
Adjustments for non-cash items	1.2
Increase in inventory & prepaid inventory	(1.2)
Other changes in operating assets/liabilities	1.7
Investing activities	(0.2)
Financing activities	(0.2)
Movement	(10.3)
Opening cash	26.4
Closing cash	16.1

Cash burn	£m
Loss for the period	(11.6)
Less non-cash movements	1.2
	(10.4)
Cash impact of gross loss	(2.6)
Cash impact of operating costs	(7.8)
	(10.4)

# HY 2022 Highlights

## Commercial

- 8.4 MWh sale to Elemental Energy
- LODES Phase 1 funding
- Secured reseller partnerships in new markets

## Operational

- 93 VS3s (3.4 MWh) shipped to site
- Manufacturing expansion with Baojia New Energy
- Improving macro supply chain environment

## Strategic

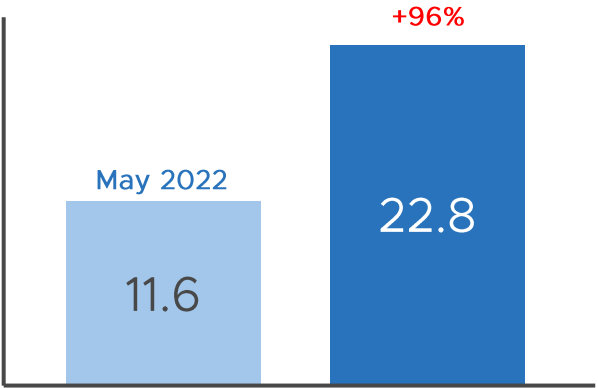
- U.S. Expansion Strategy
- MoU with Hyosung Heavy Industries
- Progress towards release of “Mistral” product



# Accelerating Near-Term Sales

## Base

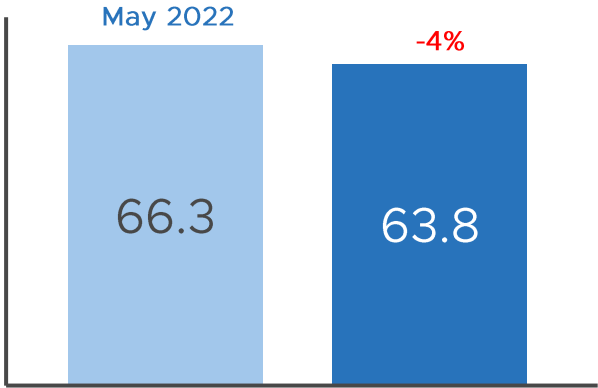
*Invinity selected & moving to close;  
Invinity's most important category*



Base category doubling since May 2022; deals entering final negotiation stage

## Advanced

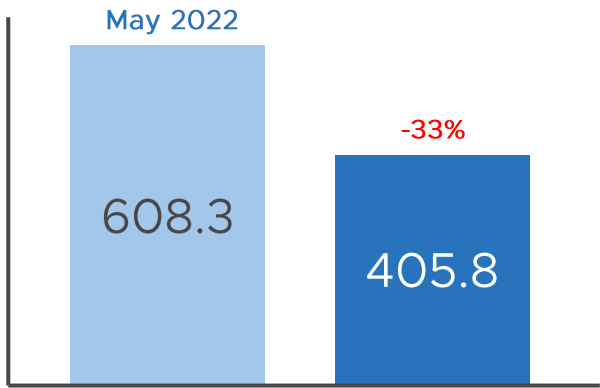
*Planning initiated; financing and size finalised*



Movement into Base and progression from Qualified

## Qualified

*Need, funding, timing and Invinity advantage established*



Strategic focus on securing near-term sales, movement into Advanced

*All numbers are MWh. Each MWh represents the daily consumption of approximately 110 UK homes, or over 75,000 homes for the entire pipeline.*

# Delivering Key Projects

## Proving Commercial Scale

### Elemental Energy

- 1.1 MWh **shipped** from Baojia New Energy for solar + storage project in Alberta, Canada.
- Balance expected to be shipped by end of 2022.

### Yadlamalka Energy

- Relocated to second site in South Australia. Original site remains under development.
- Manufacturing of 8MWh **largely complete**.
- Shipping phase in progress – targeting completion in 2022.





# Improving Macro Environment - Pricing

## Pricing beginning to normalise

- ~60% reduction in container shipping costs
- ~14% reduction in Vanadium electrolyte pricing
- Baojia partnership helping to realise further economies of scale



# Improving Macro Environment - Competition

## Lithium Woes

- Lithium fires making headlines (Victoria and Moss Landing)
- Lithium production is ~100k tons (2021) but demand:
  - currently 5x greater
  - rising faster than supply can keep up
- Lithium battery lead times increasing significantly for stationary battery projects



Victoria,  
Australia

Aug 2021

## Moss Landing, California Feb and Sept 2022

Shelter-in-place ordered for areas of Moss Landing, Highway 1 closed due to battery fire

### World's largest lithium ion battery is down, again

The Moss Landing Energy Storage Facility Phase II in the United States set off fire alarms that activated a fault water suppression system, triggering a cascading set of events that resulted in roughly 10 battery packs melting down.

FEBRUARY 17, 2022 JOHN FITZGERALD WEAVER



FIRE AT PG&E'S TESLA BATTERY FACILITY

# Improving Macro Environment – Policy & Support

## Government support

- U.S. Inflation Reduction Act providing \$369bn for clean energy:
  - \$60bn for manufacturing
  - \$30bn in investment tax credits
- Australia increasing renewable energy storage targets
- UK – LDES considered key part of National Energy Strategy

## ‘This is HUGE!’ Major climate legislation becomes law

Biden signs the Inflation Reduction Act with \$369 billion to supercharge clean energy, promote environmental justice, and cut carbon emissions

16 August 2022

2 minute read · September 8, 2022 9:48 AM GMT+1 · Last Updated 20 days ago

## Australia passes a law for net zero emissions by 2050

Reuters

## UK government cements energy storage’s role as generation asset

By [Cameron Murray](#)

July 12, 2022



# U.S. Expansion Strategy

## Taking advantage of supportive macro environment

- Qualify for Bipartisan Infrastructure Bill and Inflation Reduction Act support
- MoU for JV with U.S. Vanadium
  - Supply-chain, U.S. content
  - Pursue government funding
- UL and NFPA certification gained
- U.S. subsidiary with San Francisco office
- Delivery of multiple CEC-funded projects



# Joint Development of Grid-Scale Flow Battery

## Program deliverables: a next-generation grid-scale flow battery (“Mistral”)

- Joint announcement with Gamesa Electric / Siemens Gamesa Renewable Energy
- Announced May 2021 as a two-year staged development project
- Current (VS3): 1 MWh to **50 MWh**
- Next-generation: **100 MWh +**
- **Large early commercial interest** (not reflected in current VS3-only pipeline)





# Outlook

---

## FORWARD FOCUS

---

- Conclude and announce commercial deals, demonstrating commercial relevance of VS3 product
- Deliver backlog of closed contracts to customer sites and convert inventory into revenue
- Continue to progress Mistral development

---

## ADDITIONAL FOCUS

---

- Continue to secure strategic relationships with key partners to accelerate Invinity's growth
- Gain footholds in new markets through partnership agreements
- Leverage economies of scale and supply chain improvements to further reduce VS3 product costs and improve gross margins



# Utility-Grade Energy Storage