

## FY23 results

Thursday 31 August 2023

Tim Harris (CEO & MD), Mark Higgins (CCO & President Americas) and Trudy Walsh (CFO & Company Secretary)

## Redflow today



\$23m estimated revenue for announced projects over next 12 – 18m



Over 6 GWh qualified sales pipeline



24+ MWh battery projects announced in last 12 months



20 MWh largest project announced



270+ active deployments



3.2 GWh total energy delivered to date



estimated 2,080 tonnes of CO<sub>2</sub> offset



cumulative hours of field operations since 2018 24 million



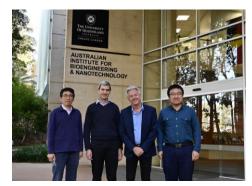
## Delivering on strategy – FY23 milestones



Breakthrough Multi-MWh project in US



Major MWh project in Queensland



Extending technology leadership



Industry recognition and impact





## The Redflow advantage



- 15+ years of technology development and field delivery
- Deep operational experience across diverse range of deployments industries and geographies
- Technology designed and optimised for rapidly accelerating 4+ hour energy storage market
- Unique hibernation feature for long delay <u>and</u> long duration requirements
- + Low-cost zinc-based chemistry with power and energy density profile provides core scale and Levelised Cost of Storage (LCOS) advantages
- Core battery design operating at multi-MWh scale
- Environmentally friendly battery that is fully recyclable and no thermal runaway (versus Lithium)
- Technology advantage protected by portfolio of patents and other IP
- Low-cost deployment model
- Manufacturing scale-up plan in place for capacity to deliver on pipeline wins



## FY23 financials



## **Profit & Loss**

- Revenue down slightly given impact on sales from raw material supplier challenges encountered in FY23. These challenges have been resolved and Redflow has order commitments for deliveries over the next 12-18 months
- Other Income includes a catch up on FY21 R&D Tax rebate and the full FY22 R&D Tax rebate
- Raw materials and consumables expense was up but not reflective of the underlying business given expensing of unrecovered Thailand facility costs due to low production and the provisioning for inventory obsolescence of the ZBM2 raw materials
- Other Expenses increased slightly given further building of the US sales team and increased headcount in Australia to support ongoing core R&D and development of the battery and EnergyPod

A\$'000	FY23	FY22
Revenue	1,235.5	1,636.7
Other Income	3,637.3	1,488.3
Expenses		
Raw Materials and Consumables Used	(6,433.0)	(4,578.1)
Other Expenses	(12,064.7)	(11,770.8)
Profit/ (Loss) before Income Tax	(13,625.0)	(13,233.8)
Income Tax Expense	(38.9)	(13.0)
Profit/ (Loss) after Income Tax	(13,664.0)	(13,246.9)

Sum of individual items may not equal total due to rounding effects



### **Balance Sheet**

\$5.5m cash at 30 June further bolstered by \$4.9m from the Entitlement Offer post year-end

#### **Current assets**

 Trade and other receivables include the accrual for the FY22 R&D tax rebate

#### Non-current assets

 Increase in PP&E reflect Redflow's continued investment in manufacturing capabilities

#### **Current liabilities**

 Trade and other Payables lower due to the completion of the New Technology Capital Group (NTCG) placement agreement from the FY22

A\$'000	30 Jun 23	30 Jun 22
Cash and cash equivalents	5,512.8	9,049.7
Trade and other receivables	2,563.8	1,485.7
Inventories	2,737.4	3,624.6
Other current assets	706.0	1,057.6
Total current assets	11,520.2	15,217.7
Property plant and equipment	1,633.3	994.4
Intangible assets	501.2	477.8
Right of use assets	249.5	408.8
Total non-current assets	2,384.0	1,881.0
Total assets	13,904.3	17,098.7
Trade and other payables	1,531.3	4,118.4
Other current liabilities	742.8	1,123.2
Provisions	2,190.3	1,170.3
Total current liabilities	4,464.6	6,951.9
Total non-current liabilities	324.2	366.7
Total liabilities	4,788.9	7,318.7
NET ASSETS	9,115.4	9,780.0

Sum of individual items may not equal total due to rounding effects



### Cashflow

- Receipts from Customers reflect lower sales. It is anticipated that deposit payments will be received in H1 FY24 for the recently announced projects
- Payments to suppliers and employees increased due to higher headcount, additional marketing and travel, and ongoing development of the ZBM3 and EnergyPod design improvements
- Successful capital raising in August 2022:
  - \$10.6m raised from Placement and Share Purchase plan

A\$'000	FY23	FY22
Cashflows from operating activities		
Receipts from customers	1,185.9	2,600.4
Payments to suppliers and employees	16,481.0	13,947.2
Grants R&D tax incentive received	2,443.6	1,465.1
Other	150.1	(14.8)
Net cash (outflows) from operating activities	(12,701.3)	(9,896.6)
Cashflows from investing activities		
Payment for property plant and equipment	(598.3)	(1,070.3)
Payments for intangible assets	(131.6)	(110.1)
Proceeds from sales of PP&E	9.6	-
Net cash (outflows) from investing activities	(720.3)	(1,180.4)
Cashflows from financing activities		
Proceeds from capital raising activities	10,624.6	10,859.8
Transaction costs related to equity issues	(578.6)	(357.8)
Principal elements of lease payments	(168.5)	(172.8)
Net cash (outflows) from financing activities	9,874.5	10,329.1
Net increase/(decrease) in cash and cash equivalents	(3547.1)	(747.9)

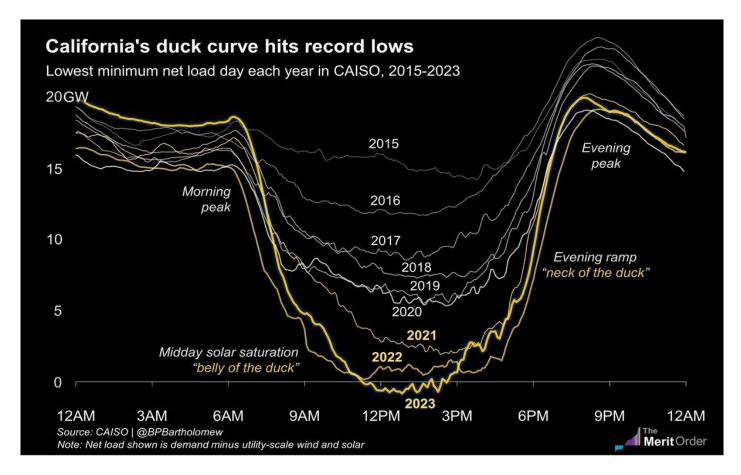
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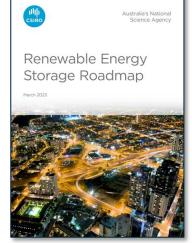


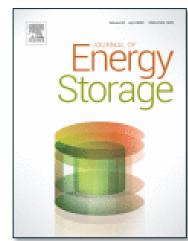
# Redflow is supporting the accelerated transition to a renewable future



## Energy transition & LDES market rapidly accelerating







Renewable energy storage must undergo massive growth if Australia is to achieve net zero by 2050: 10-14x more storage could be needed to support the NEM

ARENA, CSIRO Roadmap points to big energy storage gap, March 2023

"Long-duration energy storage is not a luxury, but a necessity. This is not an economic paradigm, it's a reliability paradigm." 1

PNNL: Energy Storage: The Time Is Now



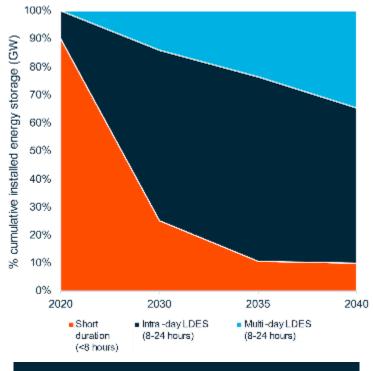




Government stimulus

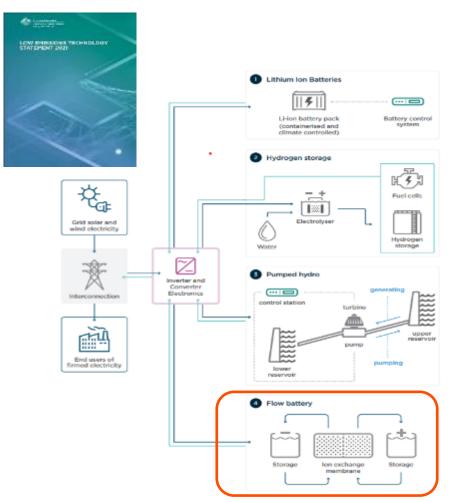
## Redflow is well positioned in LDES

Market shifting to medium and longer duration energy storage solutions<sup>1</sup>



US\$3-4 trillion

cumulative global market for Electrochemical LDES by 20503 Critical role of flow batteries recognised alongside Lithium, pumped hydro and hydrogen<sup>2</sup>



Redflow capabilities well aligned with requirements of LDES market

#### Key **Applications**

- Bulk energy shifting
- Renewables integration
- Energy arbitrage
- Back up source

#### Value Drivers

- **Duration flexibility**
- Asset reliability
- **Optimised LCOS**
- Product stewardship
- Field proven
- Safety



<sup>1.</sup> Redflow analysis based on data from Long Duration Energy Storage Council & McKinsey & Company, Net-Zero Power Report, November 2021 & EIA, Battery Storage in US Report, Aug 2021

<sup>2.</sup> Australian Government Department of Industry Science Energy and Resources, Low Emissions Technology Statement 2021, November 2021

<sup>3.</sup> Boston Consulting Group: Potential for US Competitiveness in Emerging Clean Technologies. September 2022.

## Pivotal MWh-scale project with Energy Queensland

Extending our impact and playing a key part in Queensland's energy transition and renewables plan



- Announced 2 August, the 4 MWh project is located at critical substation for network resilience
- + Project worth \*\$3.5m revenue and is expected to be delivered in the second quarter of 2024
- Project represents the next stage of the partnership between Redflow and Energy Queensland following the MOU signed in February 2023
- + Final contract negotiations now in progress
- Supporting Queensland's A\$62bn Energy and Jobs Plan plan to achieve 70% renewables by 2032 – incl. \$500m targeted for batteries
- The Queensland Government energy storage discussion paper in 2022 highlights that Queensland's BTM & off-grid energy storage demand could reach 22 GWh by 2035<sup>1</sup>



## 20 MWh Paskenta Microgrid Project





Our largest project to date



## The project puts us on a clear trajectory to meet the CEC goal of multi-MWh LDES projects

Redflow is one of only a handful of Long Duration Energy Storage companies which has non-lithium energy storage technology approved for CEC funding. Expected final contracting end September 2023



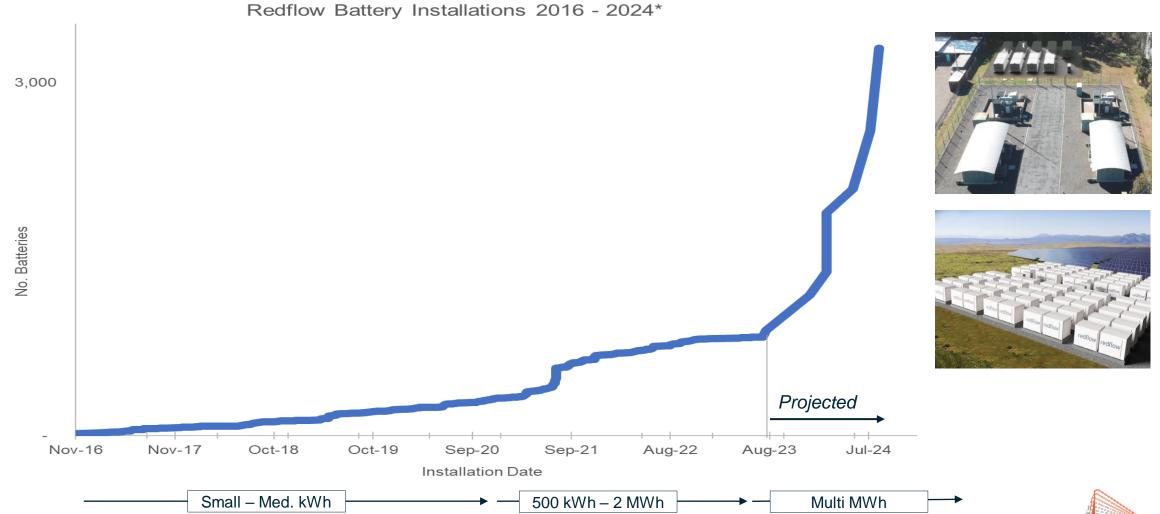
The US\$140m LDES program funding aims to advance 4-6 companies to where they can complete on a level playing field with lithium-ion. Initial system funding is in the 20-40 MWh scale per supplier, with the ultimate goal to increase this capacity to 200-400 MWh a year and help commercialise LDES solutions to be able to complete in the market.

Californian Energy Commission Mike Gravely presentation 16 June 2023

https://www.youtube.com/watch?v=VrlBcu7-yq0

## MWh scale projects underpin scale & revenue impact

Recently announced MWh projects will lead to nearly 4x increase in installed base of battery deployments



<sup>\*</sup> Installations based on deployed systems to 30th August 2023 currently active and currently expected deployment schedule of recently announced CEC and EQ projects. Note the specific delivery timetable of the CEC and EQ projects is subject to final contracting and implementation timetable and therefore may be subject to change



## At the forefront of California and Australia climate change collaboration - August 2023



High profile event with strong visible support for Redflow from Australian and Californian government leaders

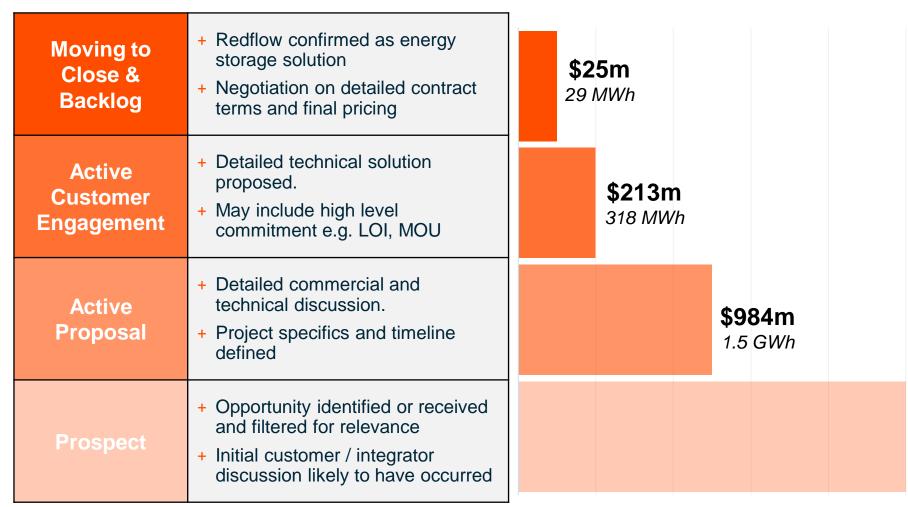
California is set to become the world's 4th largest economy with similar climate challenges to Australia

Follows the Federal Climate, Critical Minerals & Clean Energy Transformation Compact signing in May 2023

Supports basis for further growth and projects for Redflow in California



## Strong pipeline developed



projects represent the majority of global pipeline.

## Multi-MWh

opportunities comprise >95% of advanced pipeline.

10X increase in pipeline since 2022.

\$3.7bn 5.7 GWh

**Prospect-stage numbers** exclude 15.4 GWh of other market opportunities

<sup>1.</sup> Size and value of sales pipeline as of 23 August 2023. Estimated value only based on individual projects and subject to change. There is no guarantee or assurance that Redflow will secure any of these opportunities contained in the pipeline, or that, even if secured, they will generate material revenue or earnings Note: Pipeline chart is not to scale



## Sales pipeline highlights – August 2023

#### Fortune 500 US financial

500MWh+ / 2024-26 Deployment

RFX named as preferred storage technology in RFI for bank branches and multiple campuses. Engagement ongoing

#### **Health Care Pipeline**

53 MWh / Target 2024-25 Deployment

Pipeline of California Health Care resilient microgrids supported by California and US Federal grants

#### Hawai'i Large Ag **Pipeline**

17.5MWh+/2024 Deployment

Finalist for multiple multi-MWh agricultural project solar + storage microgrids

#### **Utility remote grid**

400 kWh / Target early 2024 deployment

Initial installation for fringe-of-grid application, providing resilience & power system stability

#### **Global mining** company

100MWh+ / Target initial pilot 2024

Large global mining and renewable company. Engagement since late 2021

#### Australia IPP

GWh Scale / 2024-28 Deployment

Large IPP sourcing multi-vendor battery solution to meet significant load needs

#### **Global IPP**

1+ GWh starting 2025 / Target test system deployment late 2023

200 kWh pilot likely deployed end of 2023 as demonstration of integration capability with range of RE assets

#### **Israeli Municipal Utility**

100 MWh / Target 2025 Deployment

200 kWh pilot deployment contracted as test phase for target full-scale rollout of 100 MWh LDES + solar system

#### **US Federal Government**

10MWh+ / Target initial 2024 deployment

Storage for resilience applications for US Department of Defense & Department of State.

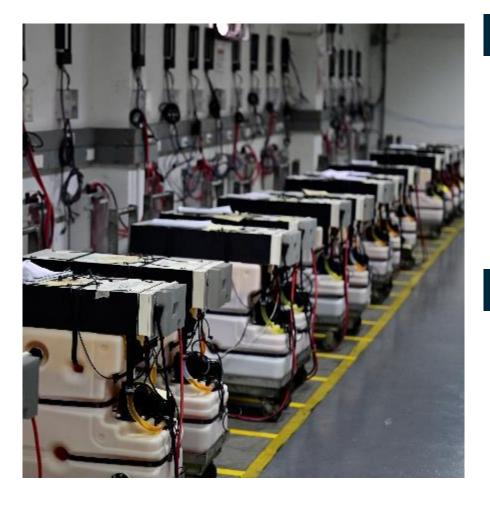
- Blend of corporate, government, and regulated utility customers across geographies
- Clear demand for Multi-MWh scale
- Initial deployments for some customers are a pilot for larger multi-MWh projects
- Indicative of strong demand beyond 80 MWh Thailand capacity in 2025 and beyond





## Redflow Thailand production update

Production ramping up to meet current order book and announced projects, subject to delivery timing finalisation. Active forward planning beyond Thailand based on current pipeline



#### Remainder CY 2023

- Full production of ZBM3s now resumed August 2023
- + Key supplier quality issues now successful addressed 10% High Density Polyethylene (HDPE)
- + Further refinements to ZBM3 design, incl. new tank, injection moulded collector
- + Additional capacity and 2nd shift commencing in January 2024
- + Ramp up EnergyPod manufacturing and assembly capabilities in Thailand
- + Ramp up aligned with delivery schedule for key projects

#### **Outlook for CY 2024**

- Further refinements to key ZBM3 design to drive cost and productivity
- + Align with US localisation opportunities sourcing, manufacturing, assembly.
- + Implement new MRP / ERP system
- Accelerated development of new 500 MWh facility, incl. automation and design target end 2025 commissioning
- + Active engagement for potential Australia location for new plant underway federal and state level
- CY2024 activities subject to available funding

## Clear strategy underpins positive outlook

## Clear strategy

Will continue to deliver growth in FY24 and beyond



## ENERGY FOCUSED APPLICATIONS

- Solar shifting and energy arbitrage
- Medium to long duration focus –
   4+ hours
- + Industries and applications where safety paramount (e.g. mining)
- + Leverage hibernation attributes



## COMMERCIAL AND INDUSTRIAL (C&I) CUSTOMERS

- + Small C&I deployments <1 MWh
- Medium to larger C&I deployments – Behind the Meter focus 2 – 20 MWh
- + Leverage energy density
- Position for Grid scale opportunities – 20 MWh+



## US AND AUSTRALIA AS CORE MARKETS

- + US California and other markets with large LDES energy storage needs & drive for diversification
- Australian market also a core focus
- Pursue deals in other markets where opportunity is compelling



## Strategic investments driving commercial success

Focused investments over the past 4+ years have led us to our multi-MWh breakthrough project









#### Global leader in LDES

recognised by key industry stakeholders in target markets



across multiple projects and applications including at MWh scale

#### **Technology leadership**

with clear path to scale up, unit cost down and margin

#### **Attractive long-term** prospects

through core chemistry performance and scale economics



Competitive product



**Scalable** manufacturing



Reference **Projects** 



**Industry** partnerships



**Industry** profile



## Our priorities are clear

#### **Priorities**

#### **Target Impact**

Convert



Convert key deals at advanced stages in our pipeline. Progress new opportunities

- + Progress key deals in pipeline especially those at detailed customer engagement
- + Continue to grow share in target markets as leading Lithium alternative for LDES in high momentum markets
- + Grow our pipeline, drive sales and increase revenue
- + Utilise industry partnerships and government relationships to accelerate sales momentum

Execute



Deliver on key projects in the US and Australia. Extend Thailand production capacity to 80 MWh p.a. as order book increases. Secure required funding for growth.

- + Execute on key projects 20 MWh in California and 4 MWh with Energy Queensland
- + Demonstrate larger system capabilities with reference systems and data including Levelised Cost of Storage (LCOS) impacts
- + Maximise Redflow Thailand for capital efficient scale for productivity & unit cost impacts
- Incorporate new design improvements for productivity, cost, quality and supplier diversification – ZBM3 battery and EnergyPod
- + Fund capital expenditure and working capital for expansion

Scale



Focus on strategic scale – projects, manufacturing and execution

- + Focus on ability to develop, win and execute against large utility scale projects and customers 20 MWh+
- + Meet market demands for local sourcing/manufacturing. Australia and US focus
- + Design, iterate and validate new target 500 MWh p.a. facility
- + Engage with potential local and national government support in target markets for scale up (US, Australia)

## Other updates

## Strategic Review

- + As a result of recent market wins and significant industry interest generated over the last few months, the Redflow Board has commenced a strategic review with the objective of accelerating market penetration, achieving scale and maximising shareholder value
- + The execution of recently announced key projects and further conversion of pipeline opportunities particularly in the US demonstrates the opportunity available
- + The Board believes this opportunity is undervalued and accordingly the strategic review will explore ways of unlocking this value with strategic partnerships, capital solutions and other initiatives
- + There is no certainty that the strategic review will lead to any particular outcome or transaction
- + Redflow will keep shareholders informed about the progress and outcomes of its review in accordance with its continuous disclosure obligations

#### Management Change

- For Trudy Walsh, CFO and Company Secretary, has formally advised the Redflow Board of her intention to retire at the Company's AGM on 23 November 2023
- + Joining in August 2018, Trudy has been an integral part of the executive team. She has worked tirelessly with the Board and CEO to enable the Company to deliver on its growth strategy and set the foundations for future commercial success. With a full order book, an established US presence and an exciting pipeline, Trudy has decided it is the best time for her to retire and pursue her other interests
- + Redflow has commenced a formal search for Trudy's replacement and will advise the market accordingly as this progresses



## Redflow summary

Growth strategy focused on multi-MWh projects is delivering results

## Production outlook full for 2023 and into 2024

24+ MWh projects generating \$23m+ revenue for delivery

MWh+ contracts reinforce
Redflow's industry leading
position — US CEC and AU EQ. Major
support from Qld and California governments

#### At the forefront of AU/US

clean energy collaboration

#### Thailand facility

back into production and ready to scale

## 6+ GWh pipeline of qualified sales opportunities

70 MWh of opportunities at advanced stages

#### Strengthened

balance sheet to execute and grow



## Questions



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