

# Redflow continues to deliver on its growth strategy

31 October 2022

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## Gen3 battery launch and substantially growing pipeline

*Quarterly activities report for September 2022*

**Redflow Limited (ASX: RFX)** (the 'Company' or 'Redflow') is pleased to provide its quarterly activities report, together with its Appendix 4C, for the three months ended 30 September 2022 (Q1 FY2023).

### Key highlights:

- Q1 FY2023 cash receipts of \$221k
- Major milestone launch of the third generation zinc bromine flow battery (ZBM3) with major technology advances
- Signed first Australian large-scale 0.56 MWh deployment of ZBM3 batteries with Southern Ocean Lodge on Kangaroo Island, South Australia
- Supplied batteries for the Australian Government's Bureau of Meteorology emissions reduction and reliability project – with two sites deployment completed
- Master Services Agreement signed with Black & Veatch to streamline the procurement of ZBM batteries for global projects
- Strategic partnership with Empower Energies to deploy solar + flow battery solutions in North America
- Announced new \$5 million research collaboration with The University of Queensland within the Australian Research Council (ARC) Research Hub administered by Deakin University
- Sales pipeline comprises over 1,100 MWh of project opportunities in the US and Australia, with 1.7 MWh of customer orders for delivery in the coming months
- Successful \$10 million capital raising to accelerate growth - comprising \$5 million placement that introduced well known tier one Australian based institutional investors to the Company's register, and oversubscribed \$5 million SPP - demonstrated strong endorsement for Redflow's technology and growth opportunities
- Cash balance of \$15.2 million as at 30 September 2022 supports accelerated growth initiatives

## **Commenting on the substantial progress made in Q1 FY2023, Redflow CEO and Managing Director Tim Harris said:**

"Multiple key milestones were achieved over the quarter including the release of our ZBM3 battery, positioning Redflow for significant growth. Following the launch we quickly signed our first large-scale ZBM3 battery deal with Southern Ocean Lodge on Kangaroo Island. We expect demand for our energy storage solution to continue to grow given the very strong pipeline of multi-megawatt hour projects we are currently in advanced discussions on.

"The global Master Services Agreement signed with Black & Veatch, and strategic partnership with Empower Energies to deploy solar + flow battery solutions in North America, significantly advance our strategy of building a strong network of EPC partnerships that will underpin accelerated deployment of Redflow's energy storage batteries globally.

"Following the strongly supported capital raising we recently undertook, Redflow is well capitalised to execute on its strategic growth objectives and with our ZBM3 battery now released, multiple large and exciting opportunities in the pipeline, and an experienced team, we look forward to accelerating growth in FY2023 to cement our status as one of the leading energy storage battery solutions globally and play our part in supporting companies and communities to move to a carbon-free future."

### **Released the ZBM3 battery with major technology advances**

Redflow's new third generation battery commenced production in Thailand in early July. The ZBM3 battery represents a major advancement over the Company's ZBM2.5 battery. The battery's new design incorporates several key innovations including a new stack design, updated electronics with increased functionality, and a new tank design and cooling system.

The new ZBM3 battery is being introduced as demand for non-lithium-based energy storage solutions surges globally. It will play an important role in supporting Redflow's expansion in the US and Australia, and will be used to fulfil a range of MWh scale commercial opportunities that are in an advanced stage of negotiation.

### **Supplied batteries for the Australian Government's Bureau of Meteorology emissions reduction and reliability project**

Redflow was selected as the energy storage solution supplier for the Australian Government Bureau of Meteorology (BoM) Renewable Hybrid Power Supply (RHPS) project. The 180 kWh of Redflow energy storage is part of the BoM's hybrid solar, battery, diesel solution to provide improved solar utilisation as well as backup power for extended operation of the sites in the event of a power failure. Redflow has supplied 18 batteries to three weather radar locations in regional NSW - Yeoval, Hillston and Brewarrina.

### **Signed first Australian large-scale 0.56 MWh deployment of Gen3 batteries**

Following the launch of initial production of Redflow's ZBM3 battery in July, Redflow signed its first large scale commercial sale of its ZBM3 batteries with Southern Ocean Lodge on Kangaroo Island, South Australia. The Company has been contracted to supply 56 zinc bromine flow batteries to the reconstruction of Southern Ocean Lodge on Kangaroo Island, South Australia, as part of its new hybrid renewable energy system.

This project will be the first large-scale deployment of Redflow's new generation ZBM3 battery in Australia, and builds on other previous large scale deployments undertaken in Australia and the US. The batteries are expected to be delivered before the end of the calendar year and the positive earnings recognised shortly afterwards.

### **Master Services Agreement signed with Black & Veatch**

In August, Redflow signed a Master Services Agreement (MSA) with leading global engineering, procurement, and construction (EPC) company Black & Veatch, who have installed more than 2,500 MWh of battery storage projects to date. The MSA streamlines the procurement of Redflow ZBM energy storage batteries for Black & Veatch projects around the world by establishing Redflow as an approved supplier.

The MSA significantly advances Redflow's strategy of building a strong network of EPC partnerships that will underpin accelerated deployment of its energy storage batteries globally. Redflow and Black & Veatch were already collaborating on a variety of exciting project opportunities in the US (that are in Redflow's pipeline) prior to signing the MSA.

### **Strategic partnership with Empower Energies to deploy solar + flow battery solutions in North America**

Redflow and Empower Energies signed a Letter of Intent to develop integrated solar + flow battery solutions for the North American commercial and industrial (C&I), remote community micro grid, and utility markets. The integrated solar and Redflow energy storage solution architecture was developed through the companies' joint engagement with a Fortune 500 company that is interested in deploying solar + flow battery storage projects at one of its commercial campuses.

Redflow's President of North America and Chief Commercial Officer, Mark Higgins, believes that this codeveloped solution will serve the Fortune 500 customer well, while also meeting the needs of a variety of customer segments across North America. Unlike lithium batteries, the uniquely safe zinc bromine chemistry has no risk of thermal runaway, making Redflow's energy storage solution better to deploy in urban and suburban environments where safety is a paramount consideration. In addition, their hibernation mode enables Redflow's batteries to be used for backup power and resilience deployments in a very cost-effective manner versus lithium.

### **New research project to help Redflow advance their competitive position and lower Levelised Cost of Storage (LCOS)**

The four-year research collaboration with The University of Queensland within the Australian Research Council (ARC) Research Hub for Safe and Reliable Energy (SafeREnergy), will focus on developing a deeper understanding of the electrolyte chemistry and electrode materials to further extend the operational characteristics of the Zinc Bromine Module (ZBM).

### **Sales pipeline comprises over 1 GWh of project opportunities in the US and Australia**

Redflow's sales pipeline has continued to grow over 1Q FY2023. Selected examples of sales opportunities within the pipeline include:

- **Anaergia Phase 2:** Repeat customer. LOI with Anaergia signed (March '22) – RFX preferred technology. EPC down-selected; Redflow named as preferred battery provider. *6MWh / Target 2023 Deployment*
- **US Government Department:** Working with engineering services company on California-based project at US government facility which requested flow batteries for backup power application. *500kWh / Target 2023 Deployment*
- **Fortune 500 US Financial:** RFX named as preferred storage technology in RFI (July '21) for bank branches. Additional Operations Centres now in scope. Engagement ongoing. *500MWh+ / 2022-26 Deployment*
- **Global Mining Company:** Large global mining with aggressive renewable targets. Engagement since late 2021. Targeting initial pilot projects. *100MWh+ / Target 2023 pilot*

## Successful \$10 million capital raising will accelerate growth initiatives

Redflow successfully raised \$5 million (before costs) from a share placement supported by existing shareholders (including the Company's largest shareholder Simon Hackett), several new leading institutional and sophisticated investors (including well known tier 1 Australian based institutional investors) and, subject to shareholder approval, the Company's Directors. In addition, the Company raised a further \$5 million from Eligible Shareholders via an oversubscribed Share Purchase Plan (SPP).

As well as providing Redflow with working capital to be applied towards funding the Company's business plan and growth objectives, the Company intends to use the net proceeds of the capital raising to:

- support sales and business development and core infrastructure
- support ramp up of ZBM3 battery manufacturing in Redflow's Thailand facility, including funding supply chain raw materials and finished goods inventory
- support cost down, product development and research activities
- capital for product development, ZBM3 factory retooling and IP protection
- capital raising expenses.

### Commenting on the successful placement and oversubscribed SPP, Redflow Chairman Brett Johnson said:

"We are very encouraged by the support shown by both new and existing investors in the recent capital raising. I would like to thank our existing shareholders for their strong show of support in the placement and SPP, including the Company's largest shareholder Simon Hackett. We also welcomed new shareholders, including well known tier 1 Australian based institutional investors, to our register during an exciting time for Redflow as the Company commences production of its ZBM3 battery and we expand further into key energy storage markets like the US."

### Financial update

The Appendix 4C quarterly cashflow report for Q1 FY2023 is attached.

Cash receipts for Q1 FY2023 were \$221k (Q1 FY2022: \$578k), and trade receivables were \$868k.

As at 30 September 2022, Redflow had a cash balance of \$15.2 million, which included \$10 million raised via the successful Share Placement and oversubscribed Share Purchase Plan.

The following is a Summary of Receipts and Expenditures for the Q1 FY2023 business activities (refer also accompanying Appendix 4C):

A\$'000	June Quarter	Year to date (3 months)
Receipts from customers	221	221
Product manufacturing and operating costs	-1,204	-1,204
Research and development	-1,074	-1,074

SG&A (Corporate Overhead)	-1,687	-1,687
Investing activities	-208	-208
Financing activities	10,106	10,106
Other	7	7

Notes:

<sup>1</sup> Numbers in the table are presented on a cash basis, consistent with the ASX Appendix 4C.

<sup>2</sup> Numbers exclude the effect of movement in exchange rates on cash held.

<sup>3</sup> Expenditures include allocation of staff costs, which are shown as a separate line in the ASX Appendix 4C.

Payments to related parties over Q1 FY23 were \$186k, relating to fees paid to directors over the quarter.

The Appendix 4C quarterly cashflow report for Q1 FY2023 is attached.

## Annual General Meeting

Redflow is holding its 2022 Annual General Meeting at 10:00am (Brisbane time) / 11:00am (AEDT) on Thursday 24 November 2022 at the Jindalee Hotel, Sinnamon Road, Jindalee, Queensland 4074.

To view the 2022 Notice of Meeting: <https://redflow.com/asx-announcements>.

To view the proposed amended Constitution: <https://redflow.com/proposed-constitution>.

To view the 2022 Annual Report: <https://redflow.com/asx-announcements>.

*This announcement was authorised for release by the Board of Redflow Limited.*

-- ENDS --

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## About Redflow

Redflow Limited, a publicly-listed Australian company (ASX: RFX), produces zinc-bromine flow batteries that tolerate daily hard work in harsh conditions. Redflow batteries are designed for high cycle-rate, long time-base stationary energy storage applications and are scalable from small systems through to grid-scale deployments. Redflow's smart, self-protecting batteries offer unique advantages including secure remote management, 100 per cent daily depth of discharge, tolerance of high ambient temperatures, a simple recycling path, no propensity for thermal runaway and sustained energy delivery throughout their operating life.

For further information, please visit: [www.redflow.com](http://www.redflow.com)

# Appendix 4C

## Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity

<b>Redflow Limited</b>
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ABN

Quarter ended ("current quarter")

49 130 227 271
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Sep-22
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<b>Consolidated statement of cash flows</b>		Current quarter	Year to date (3 months)
		\$A'000	\$A'000
<b>1</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	221	221
1.2	Payments for		
	(a) research and development	-1,074	-1,074
	(b) product manufacturing and operating costs	-1,204	-1,204
	(c) advertising and marketing	-364	-364
	(d) leased assets	-42	-42
	(e) staff costs	-645	-645
	(f) administration and corporate costs	-636	-636
1.3	Dividends received (see note 3)		
1.4	Interest received	9	9
1.5	Interest and other costs of finance paid	-2	-2
1.6	Income taxes paid	0	0
1.7	Government grants and tax incentives	0	0
1.8	Other (provide details if material)	0	0
1.9	<b>Net cash from/(used in ) operating activities</b>	<b>-3,737</b>	<b>-3,737</b>

		Current quarter	Year to date (3 months)
		\$A'000	\$A'000
<b>2</b>	<b>Cash flows related to investing activities or for:</b>		
2.1	Payment to acquire		
	(a) entities		
	(b) businesses		
	(c) property plant and equipment	-150	-150
	(d) investments		
	(e) intellectual property	-58	-58
	(f) other non-current assets		

<b>Consolidated statement of cash flows</b>		Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from disposal of:		
	(a) entities		
	(b) businesses		
	(c) property plant and equipment	0	0
	(d) investments		
	(e) intellectual property		
	(f) other non-current assets		
2.3	Cashflows from loans to other entities		
2.4	Dividends received (see Note 3)		
2.5	Other (provide details if material)		
2.6	<b>Net cash from/(used in) investing activities</b>	-208	-208
<b>3</b>	<b>Cash flows related to financing activities</b>		
3.1	Proceeds from issues of of equity securities (excluding convertible debt securities)	10,422	10,422
3.2	Proceeds from issues of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-316	-316
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)	0	0
3.10	<b>Net cash from/(used in) financing activities</b>	10,106	10,106
<b>4</b>	<b>Net increase (decrease) in cash and cash equivalents for the period</b>	6,161	6,161
4.1	Cash and cash equivalents at beginning of period	9,050	9,050
4.2	Net cash from/(used in) operating activities (Item 1.9 above)	-3,737	-3,737
4.3	Net cash from/(used in) investing activities (Item 2.6 above)	-208	-208

<b>Consolidated statement of cash flows</b>		Current quarter	Year to date (3 months)
		\$A'000	\$A'000
4.4	Net cash from/(used in) financing activities (Item 3.10 above)	10,106	10,106
4.5	Effect of movement in exchange rate on cash held	7	7
4.6	<b>Cash and cash equivalents at end of the quarter</b>	15,218	15,218

<b>5 Reconciliation of cash and cash equivalents</b>		Current quarter	Previous quarter
at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts		\$A'000	\$A'000
5.1	Bank balances	15,218	9,050
5.2	Call deposits	0	0
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	15,218	9,050

<b>6 Payments to related parties of the entity and their associates</b>		Current quarter
		\$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	186
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
<i>Note: if any amounts are shown in 6.1 or 6.2 your quarterly report must a description and an explanation for, such payments</i>		
Payments of salary and fees to Executive and Non-executive Directors.		



<b>7 Financing facilities</b>		Total facility amount at quarter end	Amount drawn at quarter end
<i>NOTE: The term "facility" included all forms of financing arrangements available to the entity Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		\$A'000	\$A'000
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	<b>Total financing facilities</b>		
7.5	<b>Unused financing facilities available at the quarter end</b>		
7.6	Include below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

<b>8 Estimated cash available for future operating activities</b>	\$A'000	
8.1	Net cash from / (used in ) operating activities (Item 1.9)	-3,737
8.2	Cash and cash equivalents at quarter end (Item 4.6)	15,218
8.3	Unused finance facilities available at quarter end ( Item 7.5)	0
8.4	Total available funds (Item 8.2 + Item 8.3)	15,218
8.5	<b>Estimated quarters of funding available (Item 8.4 divided by Item 8.1)</b>	4.1
<i>Note: if the entity has reported positive net operating cashflows in item 1.9 answer item 8.5 as "N/A. Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5</i>		
8.6	If Item 8.5 is less than 2 quarters, please provide answers to the following questions:	
8.6.1	Does the entity expect that it will continue to have the current level of net operating cash flow for the time being and if not why not ?	
	Answer: N/A	
8.6.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operation and , if so, what are those steps and how likely does it believe that they will be successful?	
	Answer: N/A	
8.6.3	Does the entity expect to be able to continue its operations and to meet its business objectives and , if so , on what basis?	
	Answer: N/A	
<i>Note: where item 8.5 is less than 2 quarters, all questions 8.6.1, 8.6.2 and 8.6.3 above must be answered</i>		

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement does give a true and fair view of the matters disclosed.

Date: 31-Oct-22

Authorised by: The Audit and Risk Committee

## Notes

- 1 This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2 If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report
- 3 Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4 If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5 If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.