

30 April 2020

## Redflow March 2020 Quarterly Report

Redflow Limited (ASX: RFX) is pleased to provide the following quarterly business update alongside its Appendix 4C for the quarter ended 31 March 2020 (Q3 FY2020).

### Highlights

- Sales up 166% to \$1.73 million for the 9 months to 31 March 2020 (9 months to 31 March 2019: \$0.65 million) reflecting conversion of existing orders and new sales
- Additional order post quarter end from Rural Connectivity Group in New Zealand
- Directors, Executives, and key staff agreeing to material reductions in their remuneration
- Ongoing focus on cost management resulting in a 50% reduction in staff costs on previous corresponding period (pcp)
- Moderated production in Thailand facility and lower material purchases resulting in 55% reduction in manufacturing and production costs on pcp
- Deployment of two independent projects with Swansea University in the UK and a remote off-grid orchard application in Western Australia
- Acceleration of key engineering projects and investment in R&D to deliver a more competitive product and implement enhanced telco and theft mitigation features
- Cash receipts of \$378k (Q3 FY2019: \$314k)
- Cash on hand at 31 March 2020 of \$4.99 million

### Operational Update

Even with the challenges of COVID-19, over Q3 FY2020 Redflow maintained its operations and continued to receive orders from several existing partners. Redflow retains healthy levels of battery inventory for immediate delivery from its Thailand manufacturing facility as well as in our main markets of South Africa and Australia to mitigate potential impacts from COVID-19.

Like most businesses across the world, COVID-19 has impacted sales opportunities and the Redflow's ability to progress various customer engagements over the second half of Q3 FY2020. Ongoing international and domestic travel restrictions, government lock down measures in key markets such as South Africa, and broader global uncertainty around a recovery of business activity has led to delays in progressing key sales opportunities and orders that were expected for Q4 FY2020. Despite these restrictions, sales and business development efforts with new and existing customer and partners are continuing given interest levels in Redflow's energy storage battery technology.

The health and safety of our employees and customers is paramount at this time. As such, we have implemented various travel restrictions and work from home measures for the majority of Redflow staff. We note that the environment remains dynamic and we will continue to monitor and manage the situation carefully.

Additionally, Redflow is undertaking a number of measures to manage the business and enable a strong recovery when market conditions improve. These include:

1. Utilisation of government support, such as JobKeeper
2. Directors, Executives, and key staff agreeing to material reductions in their remuneration
3. Acceleration of the development of our Gen3 product to enhance future competitiveness



4. Given existing stock levels, Redflow Thailand will focus on supporting Gen3 development and testing over the coming months.

### ***Update on South Africa market***

Redflow has continued to further develop its relationship with Vodacom and several other telecommunication and tower companies in South Africa and key African markets. However, the current five-week nationwide lock down and broader economic environment, as well as a focus by some operators on utilising current battery stocks, is expected to impact progression on some engagements and sales opportunities.

We remain focused on continuing to progress these opportunities to ensure we can re-establish momentum when the current lock down restrictions are raised. We continue to believe that South Africa and the wider Sub-Saharan market presents a major strategic opportunity for Redflow due to ongoing grid instability and battery theft issues.

### ***Redflow received further order for Rural Connectivity Group (RCG) for Off-grid storage***

Following an initial order of 8 batteries in November 2019, Redflow is pleased to have received a subsequent order for a further 10 batteries for installation on two new off-grid telecommunications transmission towers in the North Island of New Zealand. The order and installation works are being undertaken by local RCG partner, Switchboard Services. This order follows the successful installation and commissioning of the two original towers late last year.

### ***Further independent off grid energy storage solutions implemented***

Redflow continues to demonstrate the varied applications of its ZBM2 batteries in off-grid and remote situations, with two further independent projects implemented over Q3 FY2020.

Redflow batteries were utilised for a weak grid solution at an orchard in Western Australia impacted by continued power outages and most recently outages caused by the extensive bushfires. Given the nature of Redflow's batteries, TIEC Electrical recommended the installation of four ZBM2 batteries to maintain power to the orchards' bore pumps allowing the farm to operate off the grid.

Additionally, Swansea University, a research-led British university, installed 12 of Redflow's ZBM2 batteries to build a 120kWh microgrid with building-integrated, thin-film photovoltaic solar panels, as well as a solar wall that supplies the warm air to a heat-pump for space and water heating. This project with its dual renewable generation sources will be an important reference for flow-battery mini-grids.

We continue to explore opportunities for rural deployments and mini grids while actively supporting our key partners in Australia and other markets.

### ***Engineering update***

Redflow has consistently maintained a focus on research and development to further enhance its global technology leadership. Major projects underway include a new stack design, a new electronics board and an updated tank design. Collectively known as Redflow's Gen3 battery, further progress has been made over the past three months, with initial prototype testing underway.

The Gen3 battery will deliver higher quality and lower cost batteries, and provide the platform for a volume manufactured battery at a competitive price point. Critical insights from our partners and key end telco customers generated over the last six months are being integrated into the design to improve application specific performance, installation and in-life management. Redflow has also developed a number of important hardware and software theft mitigation features that directly meet the needs of our key target telco market end customers.

The current economic environment provides a unique opportunity for Redflow to focus on the completion of this important development work. Redflow's Brisbane based engineering team will be accelerating this work over the coming months with support from Redflow Thailand. We reaffirm our guidance that we expect the Gen3 battery to deliver at least 30% cost reductions versus our current ZBM2, at reasonable volumes. We are currently targeting initial customer trials by the end of this calendar year.



## Financial update

Cash receipts for Q3 FY2020 were \$378k (Q3 FY2019: \$314k), and trade receivables were \$225k, underpinned by orders delivered to multiple customers, including TIEC, Seven20 and Carbon Friendly Enterprises. The Company has further moderated production in light of the current COVID-19 impacted economic environment, further minimising expenditure on raw materials, while focusing on Gen 3 engineering projects to reduce production costs.

As previously disclosed, the Company received an R&D tax rebate of \$2 million in January and the Group currently has forward looking orders of 49 batteries, lower than prior quarters as demand moderated due to the impact of COVID-19. At 30 March 2020, Redflow had a cash balance of \$4.99 million.

## Commenting on the progress made in Q3 FY2020 and outlook, Redflow CEO and Managing Director Tim Harris said:

“We are pleased to have delivered a 166% increase in revenue over the first 9 months of FY2020, demonstrating that we have identified key target markets with a strong underlying demand for our batteries, including the telecommunications sector, off-grid diesel reduction and optimised mini-grid operations.

“Notwithstanding the temporary impacts from COVID-19, there remains strong interest from our customers for batteries with our unique properties, including theft mitigation and frequent cycling without degradation, and they each have the capacity to drive material battery orders for Redflow.

“After a strong first half FY2020, COVID-19 has impacted our business in the third quarter across multiple markets and customers. We have responded to the challenging operating environment by taking measures to ensure that Redflow manages costs effectively and we are well positioned to benefit from easing of Government imposed restrictions, a recovery in economic activity, and a revival in customer demand for our batteries. These initiatives will enable the Company to maximise its current cash position and deliver an enhanced product offering that meets the needs of our customers and positions us well in the future.”

## Quarterly Report Video

A short video presentation by Tim Harris on the results and key takeaways from Redflow's March 2020 Quarterly Report can be viewed at [https://youtu.be/zqfRr\\_N3Dhg](https://youtu.be/zqfRr_N3Dhg)

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## About Redflow [www.redflow.com](http://www.redflow.com)

Redflow Limited, a publicly listed Australian company (ASX:RFX), produces small 10kWh zinc-bromine flow batteries that tolerate daily hard work in harsh conditions. Marketed as [ZCell](#) and [ZBM2](#), Redflow batteries are designed for high cycle-rate, long time-base stationary energy storage applications in the residential, commercial & industrial and telecommunications sectors, and are scalable from a single battery installation through to grid-scale deployments. Redflow batteries are sold, installed and maintained by an international network of energy system integrators. 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.

# 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

49 130 227 271
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Quarter ended ("current quarter")

Mar-20
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<b>Consolidated statement of cash flows</b>		Current quarter	Year to date (9 months)
		\$A'000	\$A'000
<b>1</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	378	1,768
1.2	Payments for		
	(a) research and development	-619	-2,286
	(b) product manufacturing and operating costs	-806	-3,388
	(c) advertising and marketing	-131	-748
	(d) leased assets	-48	-141
	(e) staff costs	-389	-1,797
	(f) administration and corporate costs	-465	-1,090
1.3	Dividends received (see note 3)		
1.4	Interest received	13	62
1.5	Interest and other costs of finance paid	-4	-8
1.6	Income taxes paid	-25	-61
1.7	Government grants and tax incentives	2,015	2,055
1.8	Other (provide details if material)	0	0
1.9	<b>Net cash from/(used in ) operating activities</b>	<b>-81</b>	<b>-5,634</b>

		Current quarter	Year to date (9 months)
		\$A'000	\$A'000
<b>2</b>	<b>Cash flows related to investing activities</b>		
2.1	Payment to acquire		
	(a) entities		
	(b) businesses		
	(c) property plant and equipment	-32	-143
	(d) investments		
	(e) intellectual property	-39	-163
	(f) other non-current assets		

<b>Consolidated statement of cash flows</b>		Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from disposal of:		
	(a) entities		
	(b) businesses		
	(c) property plant and equipment		
	(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>	-71	-306
<b>3</b>	<b>Cash flows related to financing activities</b>		
3.1	Proceeds from issues of of equity securities (excluding convertible debt securities)		
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	0	-66
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)		
3.10	<b>Net cash from/(used in) financing activities</b>	0	-66
<b>4</b>	<b>Net increase (decrease) in cash and cash equivalents for the period</b>	-152	-6,006
4.1	Cash and cash equivalents at beginning of period	5,023	10,902
4.2	Net cash from/(used in) operating activities (Item 1.9 above)	-81	-5,634
4.3	Net cash from/(used in) investing activities (Item 2.6 above)	-71	-306

<b>Consolidated statement of cash flows</b>		Current quarter	Year to date (9 months)
		\$A'000	\$A'000
4.4	Net cash from/(used in) financing activities (Item 3.10 above)	0	-66
4.5	Effect of movement in exchange rate on cash held	114	89
4.6	<b>Cash and cash equivalents at end of the quarter</b>	<b>4,985</b>	<b>4,985</b>

<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	1,985	1,023
5.2	Call deposits	3,000	4,000
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>	<b>4,985</b>	<b>5,023</b>

## 6 Payments to related parties of the entity and their associates

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

Current quarter
\$A'000

Note: if any amounts are shown in 6.1 or 6.2 your quarterly report must a description and an explanation for, such payments

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**7 Financing facilities**

*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.*

Total facility amount at quarter end	Amount drawn at quarter end
\$A'000	\$A'000

7.1 Loan facilities

7.2 Credit standby arrangements

7.3 Other (please specify)

7.4 **Total financing facilities**7.5 **Unused financing facilities available at the quarter end**

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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.

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**8 Estimated cash available for future operating activities**

\$A'000

8.1 Net cash from / (used in ) operating activities (Item 1.9)

-81

8.2 Cash and cash equivalents at quarter end (Item 4.6)

4,985

8.3 Unused finance facilities available at quarter end ( Item 7.5)

0

8.4 Total available funds (Item 8.2 + Item 8.3)

4,985

8.5 **Estimated quarters of funding available (Item 8.4 divided by Item 8.1)**

61.5

8.6 If Item 8.5 is less than 2 quarters, please provide answers to the following questions:

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

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

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

## 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: 30-Apr-20

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.