



31 July 2019

Redflow June 2019 Quarterly Report

Redflow Limited (ASX: RFX) is pleased to provide the following quarterly business update alongside its Appendix 4C (Quarterly cashflow report) for the quarter ended 30 June 2019 (Q4 FY2019).

Q4 FY2019 highlights: Key strategic partnerships put in place to drive future growth

- Secured preferred supplier status with Soul Energy for infrastructure projects across Australia, New Zealand and the South Pacific
- Expanded into China with a collaboration agreement with ZbestPower Co for a smart grid project
- Agreement executed to provide batteries to Mobax South Africa to test as a solution for existing mobile phone towers with a leading South African mobile network provider
- Raised \$8.4 million via Entitlement Offer
- Cash receipts of \$74k (Q4 FY2018: \$296k) reflecting customer delays in some projects

Soul Energy partners with Redflow for infrastructure rollouts

Redflow secured preferred supplier status with Soul Energy to provide energy storage batteries for the first of a number of expected infrastructure projects throughout Australasia. Soul Energy is a green energy systems integrator that provides technology infrastructure solutions in Australia, New Zealand and the South Pacific.

The partnership enables Soul Energy to focus on key verticals, including telecommunications, utilities, agriculture and commercial and off-grid communities.

The total potential requirement for Soul Energy's first customer is up to 200 Redflow batteries, with an initial small order targeted to commence in the coming months. Soul Energy and the end customer are currently finalising commercial terms, including project staging and delivery schedules.

Redflow expands into China, a key strategic market

On 17 May, Redflow announced a collaboration agreement with ZbestPower Co, a Chinese zinc-bromine flow battery company. The collaboration involves the supply of a large scale (100kWh) Redflow battery energy storage solution for a demonstration project relating to a key smart grid project in China.

The deployment is part of the Haidong Transportation Group's Smart Grid Project in Qinghai Province, a key market in China's shift to a low-carbon renewable energy future. The energy storage system will allow the Haidong Transportation Group to charge its electric vehicles with renewable energy, and energy at the lowest price from the grid. ZbestPower is managing the project.

The Redflow battery energy storage solution contains 10 ZBM2 zinc-bromine flow batteries for an initial six-month deployment expected to commence next month. The project is an important milestone for Redflow as it marks the Company's entry into a key target market and is expected to be a key springboard to develop further projects in China.

Energy storage in China is a key strategic market opportunity for Redflow, with the country transitioning to greater use of renewable energy. The China National Development and Reform Commission has called for greater investment in flow batteries, leading to a surge in projects focused on flow battery solutions and Redflow is well-placed to capitalise on these opportunities.



Extends footprint with leading South African telco

During the quarter Redflow signed an agreement with Mobax South Africa to provide energy storage batteries to test as a solution for mobile phone towers with a leading South African mobile network provider. Significantly, this telco is choosing to deploy Redflow's ZBM2 batteries at existing sites rather than only new towers.

Redflow's energy storage batteries will be deployed at existing mobile sites, with a focus on reducing the high cost of running diesel backup generators, as well as providing a less attractive target for theft. Redflow will provide up to 10 ZBM2 batteries for the project, which aims to validate the technical and commercial benefits of the Redflow energy storage solution.

Redflow's new system integration partner Mobax South Africa has already deployed a number of batteries for this project, with the telco customer currently evaluating their performance.

Achieved ISO9001 Certification

Redflow successfully achieved ISO9001:2015 certification on 3 July 2019.

The ISO (International Organisation for Standardisation) is a multinational standardising organisation that has published more than 21,000 international business standards. The ISO 9001 standard (last updated in 2015) covers the requirements of developing and implementing a Quality Management System (QMS) within a business.

In development for more than 12 months, this is an important milestone for Redflow's manufacturing facility in Thailand. ISO9001 is an internationally recognised standard that enhances Redflow's ability to demonstrate to customers that the Company's manufacturing facility adheres to a high standard of quality assurance with an auditable QMS.

Financial Update

Demonstrating growing market acceptance of its innovative flow battery technology with important agreements signed in the past 12 months, Redflow successfully raised \$8.4 million from a pro-rata non-renounceable Entitlement Offer that closed on 24 May 2019.

The successful capital-raising reflected strong shareholder support for Redflow as it has made significant progress delivering on its growth strategy to commercialise its world-leading Australian developed zinc bromine flow battery technology. The take-up represented approximately 56 per cent of total shares offered and were issued on Friday 31 May 2019.

Redflow is now in an improved financial position with a strengthening near term outlook and a cash balance of \$10.9 million at 30 June 2019.

Additionally, the investment in manufacturing and processes is starting to bear fruit with an enhanced ability to secure customer orders and sales opportunities as evidenced by the agreements outlined in this quarterly business update. As a result of delays in customer contract execution on a number of key projects and sales opportunities, the past quarter saw a slowdown in delivery of batteries with cash receipts of only \$74,000 received. These sales opportunities and contracts are anticipated to provide a positive impact in the upcoming quarters as and when the contracts are enacted.

Commenting on the progress made in Q4 FY2019 and outlook, Redflow CEO and Managing Director Tim Harris said:

"We remain optimistic about the long-term opportunities for us to deploy our zinc-bromine flow battery technology. At the recent APPEA conference, Australia's Chief Scientist Dr Alan Finkel noted that flow batteries have the potential to be a big contributor in the stationary energy storage market, given their advantages over lithium ion batteries, including a greater lifespan and lower environmental risks.

"We have made significant progress on our commercialisation strategy in key markets over the quarter and the successful \$8.4 million capital raising supports our growth plans. Some projects are progressing slower than we would like due to end customer delays, but we remain confident that we are well placed as these projects progress.



"We have received positive feedback regarding our recent deployments with Optus in the Daintree forest and the two childcare centres in Melbourne with the Knox City Council. Our South Africa mobile tower deployment with Moropa is steadily progressing as new sites are made available.

"Strategically, we see substantial opportunities to grow in China over the medium term, which is a key growth market for Redflow. In addition, the partnerships signed with Soul Energy and Mobax South Africa will allow us to scale our solutions in large markets where there are growing needs for storage solutions that deliver demonstrated performance and cost savings, compared to existing diesel and lead-acid powered solutions."

- END -

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About Redflow 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.

Rule 4.7B

Appendix 4C

Quarterly report for entities subject to Listing Rule 4.7B

Introduced 31/3/2000. Amended 30/9/2001, 24/10/2005/17/12/10, 01/09/16

Name of entity

Redflow Limited

ABN

Quarter ended ("current quarter")

49 130 227 271

Jun-19

Consolidated statement of cash flows		Current quarter \$A'000	Year to date FY \$A'000
1. Cash flows from operating activities			
1.1	Receipts from customers	74	1,001
1.2	Payments for		
	(a) research and development	-619	-2,707
	(b) product manufacturing and operating costs	-1,278	-8,207
	(c) advertising and marketing	-309	-1,176
	(d) leased assets		
	(e) staff costs	-676	-3,445
	(f) administration and corporate costs	-223	-1,690
1.3	Dividends received (see note 3)		
1.4	Interest received	22	179
1.5	Interest and other costs of finance paid	-2	-14
1.6	Income taxes paid	-46	-46
1.7	Government grants and tax incentives	0	1,752
1.8	Other (Corporate Advice)	0	0
	Other (Other Grant Received)	0	0
	Other (Termination Payments)	-139	-139
1.9	Net cash from/(used in) operating activities	-3,196	-14,492

		Current quarter \$A'000	Year to date FY \$A'000
2	Cash flows related to investing activities		
2.1	Payment to acquire		
	(a) property, plant and equipment	-73	-479
	(b) businesses (see item 10)		
	(c) investments		
	(d) intellectual property	-11	-138
	(e) other non-current assets		
2.2	Proceeds from disposal of:		
	(a) property, plant and equipment	22	22
	(b) businesses (see item 10)		
	(c) investments		
	(d) intellectual property		
	(e) 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	Net cash from/(used in) investing activities	-62	-595
3	Cash flows related to financing activities		
3.1	Proceeds from issues of shares	8,240	8,240
3.2	Proceeds from issues of convertible notes	0	0
3.3	Proceeds from exercise of share options		
3.4	Transaction costs related to Item 3.1, 3.2, 3.3		
3.5	Proceeds from borrowings	0	0
3.6	Repayment of borrowings	0	0
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	Net cash from/(used in) financing activities	8,240	8,240
4	Net increase (decrease) in cash and cash equivalents for the period	4,982	-6,848
4.1	Cash and cash equivalents at beginning of quarter/year to date	5,920	17,733
4.2	Net cash from/(used in) operating activities (Item 1.9 above)	-3,196	-14,493
4.3	Net cash from/(used in) investing activities (Item 2.6 above)	-62	-595
4.4	Net cash from/(used in) financing activities (Item 3.10 above)	8,240	8,240
4.5	Effect of movement in exchange rate on cash held	0	17
4.6	Cash and cash equivalents at end of the quarter	10,902	10,902

5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts		Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	902	2,420
5.2	Call deposits	10,000	3,500
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	10,902	5,920

6. Payments to directors of the entity and their associates

		Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	129
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	
6.3	Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	

7. Payments to related entities of the entity and their associates

		Current quarter \$A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	
7.2	Aggregate amount of loans to the parties included in item 2.3	
7.3	Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	

8. Financing facilities available

Add notes as necessary for an understanding of the position.

- 8.1 Loan facilities
8.2 Credit standby arrangements
8.3 Other (please specify)

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

- 8.4 Include below a description of each facility above, including the lender, interest rate 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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9. Estimated cash outflow for next quarter		\$A'000
9.1	Research and development	-703
9.2	Product manufacturing and operating costs	-1,436
9.3	Advertising and marketing	-277
9.4	Leased assets	0
9.5	Staff costs	-872
9.6	Administration and corporate expenses	-257
9.7	Other (other)	-290
9.8	Total estimated cash outflows	-3,835

The above estimate does not include receipts from customers or other revenue expected to be received in the quarter. The Other (other) cost includes anticipated Capital Expenditure

10. Acquisitions and disposals of business entities (Items 2.1(b) and 2.2(b) above)		Acquisitions	Disposals
10.1	Name of entity		
10.2	Place of incorporation or registration		
10.3	Consideration for acquisition or disposal		
10.4	Total net assets		
10.5	Nature of business		

Compliance statement

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

Sign
here:



Date: 31 July 2019

Company Secretary

Print

name: Trudy Walsh