

# Redflow scaling up in FY24 with 60 MWh of projects announced

31 October 2023

---

- **Over 60 MWh of projects announced with blue-chip customers in the US and Australia since June 2023**  
*Redflow's largest ever confirmed order book*
- **Growing support in the US and Queensland for Redflow's leading solution**  
*Reflects Redflow's critical role to support the transition to renewable energy*
- **Successful record of winning multi-MWh projects in the US market**  
*Validates investment in US capabilities and team*
- **Milestone entry into Europe with ACCIONA Energía to integrate batteries in front-of-meter grid applications**  
*Provides Redflow with a key reference project in Europe*
- **Continued growth in qualified sales pipeline, now at over 6 GWh**  
*Strong high-quality pipeline reflects accelerating market visibility and interest*
- **Successfully raised \$11.65 million to support next growth phase**

*Quarterly activities report for 3 months ended 30 September 2023*

**Redflow Limited (ASX: RFX)** (the 'Company' or 'Redflow') is pleased to provide this quarterly activities report, alongside its Appendix 4C for the three months ended 30 September 2023 (Q1 FY2024).

## Key highlights:

- Redflow has announced over 60 MWh of projects for delivery since June 2023 – reflecting 10x growth vs the cumulative installed capacity and the Company's largest-ever confirmed order book.

**redflow.com**

Redflow Limited ACN 130 227 271  
27 Counihan Road  
Seventeen Mile Rocks QLD 4073

The customers for these orders are blue-chip, enabling Redflow to accelerate commercial constructs and productivity improvements from its manufacturing facility. Key contracts announced in Q1 FY2024 include:

- The **US Department of Energy** (DOE) approved funding for a 34.4 MWh long-duration energy storage (LDES) microgrid project in California with Redflow as the battery provider.
  - 4 MWh zinc-bromine flow battery energy storage to be supplied to **Energy Queensland** with the preferred site identified at Ipswich.
  - In partnership with **Ameresco**, a US\$2.83 million contract with the **US Department of Defense's** (DOD) Defense Innovation Unit, to deliver a microgrid using a 1.2 to 1.4 MWh Redflow non-lithium LDES system.
  - **ACCIONA Energía** to integrate Redflow's zinc-bromine flow batteries into front-of-meter grid applications, with this project providing Redflow with a key reference project in Europe.
- Redflow is now receiving strong support in the US and Queensland where LDES solutions are gaining traction with high renewable grids.
  - Attended a series of high-profile events as part of Prime Minister Albanese's visit to Washington in late October 2023.
  - Successful record on multi-MWh projects in the US market validates investment in US capabilities and team, accelerating additional pipeline opportunities across the US, Australia and selected international markets.
  - Successfully raised \$11.65 million from new and existing shareholders to support the Company's next growth phase.
  - Q1 FY2024 cash receipts of \$148k. Cash balance of \$12.7 million as at 30 September 2023.

**Commenting on the continued progress made over the first quarter of FY24, Redflow CEO and Managing Director Tim Harris said:**

*"Redflow is well-positioned for commercial success in FY24 and beyond, given an accelerating focus on non-lithium energy storage solutions and further stimulus and regulatory support in the US and Australia. The global energy transition continues to accelerate the critical need for long-duration energy storage [LDES] and Redflow is uniquely placed to support this transition with our world-leading LDES batteries and technology.*

*"During the quarter, we received support from new and existing shareholders to raise \$11.65 million. This successful capital injection will allow Redflow to execute its announced customer projects and other planned activities.*

*"Redflow's recent multi-megawatt hour project announcements with blue-chip customers build on the increasing momentum we have been experiencing, and further validate our technological advantages and the Company's commercial potential. Since June, we have announced over 60 MWh worth of projects, which provides a robust foundation for the expansion of our existing Thailand manufacturing facility in 2024 and beyond.*

**redflow.com**

Redflow Limited ACN 130 227 271  
27 Counihan Road  
Seventeen Mile Rocks QLD 4073

*“We note Redflow is the only Australian energy storage technology that has been selected by the US Department of Defense and US Department of Energy for these high profile and strategic projects, reflecting our increasing visibility amongst key Australian and US decision makers.*

*“There is still much to do but we are very excited by the opportunities we see ahead for Redflow in FY24 with various commercial achievements well underway and our ongoing focus on the execution of the Company’s growth strategy and building scale in our business.”*

### **Redflow named as the battery provider for a 34.4 MWh LDES microgrid project**

During the first quarter, the US Department of Energy (DOE) announced funding selection for a 34.4 MWh LDES microgrid project in which Redflow was named as the battery provider. The project will form part of the DOE’s US\$325 million LDES program that seeks to advance critical clean energy technologies, expand the adoption of renewable energy resources, and strengthen America’s energy security.

Under the current project plan, Redflow aims to supply 34.4 MWh of zinc-bromine flow batteries, enclosed in its modular energy pods, in late 2025. The timetable is indicative only and subject to final approvals and customer project timeline.

### **Redflow selected for 4 MWh Energy Queensland battery project**

In August, Redflow was selected to supply 4 MWh of energy storage to Energy Queensland as part of a \$12 million network battery project.

The 4 MWh project is estimated to be worth approximately \$3.5 million in revenue to Redflow in FY24. The project is expected to be delivered in the second quarter of 2024.

Redflow’s zinc-bromine flow batteries can play a key part in Energy Queensland’s battery program. The Queensland Government Battery Industry Opportunities for Queensland discussion paper highlighted that Queensland’s energy storage demand could potentially reach 14 GWh by 2030.

### **Redflow and Ameresco to deploy microgrid for US Department of Defense**

In September, Redflow signed a US\$2.83 million contract with the US Department of Defense (DOD) Defense Innovation Unit (DIU) to deliver a prototype microgrid using a 1.2 to 1.4 MWh Redflow non-lithium LDES system.

The project aims to use the repowered Stewart Air National Guard Base solar energy microgrid with 1.2 – 1.4 MWh of Redflow energy storage to provide energy resilience for critical loads on the base. The microgrid will also provide a dispatchable solar plus storage resource that is capable of peak shaving and supports the State of New York’s clean energy goals. If successful, the solution could be rolled out across numerous US DOD facilities and critical infrastructure around the world.

Deployment and commissioning of this system are planned for the second half of 2024.

### **Redflow awarded 200 kWh LDES project with ACCIONA Energía – providing reference project in the European market**

In October, Redflow was awarded a 200 kWh LDES project with ACCIONA Energía. This project will include a 200 kWh pod, supplied by Redflow, and will integrate the Company’s technology with front-of-meter grid-participating applications.

**redflow.com**

Redflow Limited ACN 130 227 271  
27 Counihan Road  
Seventeen Mile Rocks QLD 4073

The project will combine Redflow's zinc-bromine flow batteries with the solar assets at ACCIONA Energía's Montes Del Cierzo clean energy innovation center in Spain. This installment could lead to future utility-scale deployments across ACCIONA Energía's portfolio of renewable energy projects across 20 countries including Australia, North America and Europe.

ACCIONA Energía also plans to use Redflow's technology to demonstrate a hybrid solution that includes LDES solutions and ultracapacitors integrated with solar and wind generation assets, in alignment with their plans to add storage to existing renewables projects at sites around the world and incorporate storage into other projects currently under development.

### **Increasing industry profile and recognition of the important role Redflow can play in the energy transition**

Redflow has the potential to play a significant role in the energy transition and is receiving strong support in Queensland and the US.

Redflow has continued to invest in building its market presence across various industry events including attendance at RE+, America's largest renewable energy conference in September, and All Energy in Melbourne in October. Both events generated significant industry and customer interest in Redflow's leading market solution.

In October, CEO Tim Harris joined Queensland Minister for Energy, Renewables and Hydrogen and Minister for Public Works and Procurement, Mick de Brenni, at an event at the Queensland University of Technology Advanced Battery Facility in Brisbane. The Minister reiterated the importance of safe, long-duration battery technologies to meet Queensland's 70% renewable energy target by 2032 and the importance that local companies like Redflow play in the State's energy transition.

In October, Australian Prime Minister Anthony Albanese visited Washington to meet with US President Joe Biden to further deepen collaboration and strategic alignment across a number of key areas. Both the US and Australian leaders recognised the energy transition and ensuring energy security will form a major part of investment and policy focus, with Prime Minister Albanese during his address also reaffirming the position of climate and clean energy as the third pillar of the alliance.

Redflow executives had the honour of being invited to attend a series of exclusive events as part of the visit, including a private meeting with Prime Minister Albanese to discuss the Company's breakthrough projects with the Paskenta tribe of Nomlaki Indians and the Californian Energy Commission, the US Department of Defense and US Department of Energy.

In discussions with Prime Minister Albanese, Redflow executives highlighted the advantages of the US Inflation Reduction Act and its potential impact on the demand for Redflow's innovative solutions. There was also discussion on how the Australian government can actively contribute to supporting homegrown companies, such as Redflow, to play a meaningful role in Australia's energy transition, which will underpin the nation's aspiration to become a leading renewable energy superpower.

### **Strong growth in sales pipeline with multiple opportunities at advanced stages**

Redflow's successful focus on multi-MWh projects in the US and Australian markets has seen several large contract announcements over Q1 FY24, validating the Company's investment in its US capabilities and team. In addition, the Company's qualified sales pipeline currently stands at over 6 GWh.

## Production and operations update

The Redflow US and Australian commercial teams have been focused on finalising the contracts for the key projects announced in the last few months:

- The Company has been informed by Faraday management (who are leading the project for the 20 MWh CEC Paskenta project in California) that formal contracting is expected in the next few weeks following internal delays within the CEC. While this has taken longer than all parties had anticipated, Redflow is confident this does not present any risk to the project proceeding or being delivered next year.
- The US DOD project has commenced with a project kick-off planning meeting with the US Department of Defense, delivery partner Ameresco and Redflow's delivery team last month, with delivery targeted for Q3 of 2024.
- Final contract negotiations are continuing with Energy Queensland and are expected to be concluded shortly, with system delivery expected in early Q2 2024.
- Redflow expects final contract negotiations on the 34.4 MWh project for the US Department of Energy (and Californian Energy Commission which is also partially funding the project) to be concluded in mid-2024 with full system delivery in late 2025.

Production of ZBM3 batteries at Redflow's Thailand manufacturing facility has continued during the quarter. Annualised production is currently at approximately 10 MWh per annum and is expected to increase to circa 40 MWh in early 2024 as key engineering and productivity projects are delivered. This is aligned with the expected delivery timetables for major projects announced – notably Energy Queensland, US DOD, Acciona and the 20 MWh projects in California announced in June. All of these projects will be delivered using Redflow's 200 kWh pod enclosure which is also being made in Thailand.

Daily production yield and planned manufacturing scale-up in recent weeks has been impacted by some ongoing variation in key materials from suppliers – particularly around glass filled High Density Polyethylene (HDPE). This is the same issue Redflow experienced previously, with a new batch from the Company's supplier assessed as being below required quality standards. Ongoing testing and validation of various alternatives with current and new suppliers is being undertaken and is expected to provide a robust alternative in the coming weeks. Furthermore, a new engineering approach of injection moulded parts that significantly reduces the need for this glass filled HDPE has been in development for the last six months and is expected to be introduced into production by the end of December 2023. Overall quality control is a key priority for management and Redflow is confident this new solution will deliver a robust and scalable solution that will also not impact the delivery timetable for key projects as noted above.

## Successfully raised \$11.65 million

Redflow raised a total of \$11.65 million from its Entitlement Offer, with \$4.9 million raised in August and a further \$6.75 million raised in September. The funds raised further bolster Redflow's capital position at a key inflection point in the commercialisation of the Company's world-leading LDES technology, while also introducing several well-known Australian-based institutional funds to the register.

## Financial update

The Appendix 4C quarterly cashflow report for Q1 FY2024 is attached.

Cash receipts for Q1 FY 2024 were \$148k (Q1 FY2023: \$221k) and trade receivables were \$52k.

As at 30 September 2023, Redflow had a cash balance of \$12.7 million.

The following is a Summary of Receipts and Expenditures for the Q1 FY2024 business activities (refer also accompanying Appendix 4C):

<b>A\$'000</b>	<b>June Quarter</b>	<b>Year to date (12 months)</b>
Receipts from customers	148	148
Product manufacturing and operating costs	-1,257	-1,257
Research and development	-1,177	-1,177
SG&A (Corporate Overhead)	-1,518	-1,518
Investing activities	-152	-152
Financing activities	11,101	11,101
Other	-	-

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 on exchange rates on cash held.

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

Payments to related parties over Q1 FY24 were \$211k, relating to fees paid to directors over the quarter.

## Investor webinar details

Managing Director & Chief Executive Officer Tim Harris, President North America & Chief Commercial Officer Mark Higgins, and Chief Financial Officer & Company Secretary Trudy Walsh, will participate in a webinar covering the Company's quarterly update at 10:30am AEDT / 9:30am AEST on Wednesday, 1 November 2023. Participants will have an opportunity to ask questions at the end of the webinar.

To attend, please pre-register at:

[https://us02web.zoom.us/webinar/register/WN\\_XPtZ2h7SJkH0oDgLvI2Yg](https://us02web.zoom.us/webinar/register/WN_XPtZ2h7SJkH0oDgLvI2Yg)

**redflow.com**

Redflow Limited ACN 130 227 271  
27 Counihan Road  
Seventeen Mile Rocks QLD 4073

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

-- ENDS --

For further information contact:

**Corporate**

Tim Harris  
+61 7 3376 0008  
tim.harris@redflow.com

**Investors**

Ronn Bechler  
+61 400 009 774  
ronn.bechler@automicgroup.com.au

**Media**

Maree Mills  
+61 401 233 138  
maree.mills@redflow.com

**About Redflow**

Redflow, a publicly listed Australian company (ASX: RFX) with offices in Australia and the US, designs and manufactures long-duration zinc-bromine flow batteries for stationary commercial, industrial, and utility applications. Redflow batteries are modular, scalable, fire-safe, and capable of 100% depth of discharge. They can also operate in a wide range of environments without supplemental heating or cooling and offer an extended life with minimal degradation over time. The company's smart, self-protecting storage technology offers unique advantages, including a hibernation feature, secure remote management, a simple recycling path, and sustained energy delivery throughout its operating life. Redflow's energy storage solutions have been in use for more than a decade at more than 250 sites in over 9 countries.

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>
------------------------

ABN

Quarter ended ("current quarter")

49 130 227 271
----------------

Sep-23
--------

Consolidated statement of cash flows		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	148	148
1.2	Payments for		
	(a) research and development	-1,177	-1,177
	(b) product manufacturing and operating costs	-1,257	-1,257
	(c) advertising and marketing	-269	-269
	(d) leased assets	-42	-42
	(e) staff costs	-751	-751
	(f) administration and corporate costs	-456	-456
1.3	Dividends received (see note 3)		
1.4	Interest received	56	56
1.5	Interest and other costs of finance paid	-1	-1
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>-3,749</b>	<b>-3,749</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	-138	-138
	(d) investments		
	(e) intellectual property	-14	-14
	(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>	-152	-152
<b>3</b>	<b>Cash flows related to financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	11,643	11,643
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	-542	-542
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>	11,101	11,101
<b>4</b>	<b>Net increase (decrease) in cash and cash equivalents for the period</b>	7,200	7,200
4.1	Cash and cash equivalents at beginning of period	5,513	5,513
4.2	Net cash from/(used in) operating activities (Item 1.9 above)	-3,749	-3,749
4.3	Net cash from/(used in) investing activities (Item 2.6 above)	-152	-152
<b>Consolidated statement of cash flows</b>		Current quarter \$A'000	Year to date (3 months) \$A'000
4.4	Net cash from/(used in) financing activities (Item 3.10 above)	11,101	11,101
4.5	Effect of movement in exchange rate on cash held	-8	-8
4.6	<b>Cash and cash equivalents at end of the quarter</b>	12,705	12,705

<b>5</b>	<b>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	12,705	5,513
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>	12,705	5,513

<b>6</b>	<b>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 associated included in item 1	211
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</b>	<b>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</i>		
	<i>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.		

8	<b>Estimated cash available for future operating activities</b>	\$A'000
8.1	Net cash from / (used in ) operating activities (Item 1.9)	-3,749
8.2	Cash and cash equivalents at quarter end (Item 4.6)	12,705
8.3	Unused finance facilities available at quarter end ( Item 7.5)	0
8.4	Total available funds (Item 8.2 + Item 8.3)	12,705
8.5	<b>Estimated quarters of funding available (Item 8.4 divided by Item 8.1)</b>	3.4
<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 ?	
	<i>Answer:</i> <div style="border: 1px solid black; height: 70px; width: 100%;"></div>	
	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?	
	<i>Answer:</i> <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	
	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?	
	<i>Answer:</i> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>	
<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-23

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.