QUARTERLY ACTIVITIES REPORT

December 2024

Li-S Energy

Our fixed wing, 2.4 metre wingspan, single motor UAV, powered by a twelve-cell Li-S Energy lithium-sulfur battery

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CEO's REPORT

The last quarter of 2024 was one of hitting exciting and important milestones, creating commercial sized cells with world-leading energy density, integrating them into a UAV battery pack, and completing our first successful test flights.

Smashing our Energy Density Record

We expected our new Phase 3 production line to improve both production quantity and cell performance, and it has not disappointed.

In October we were proud to announce our new GEN3 pouch cells built on the Phase 3 line had achieved 495Wh/kg on first discharge, and 456Wh/kg after formation cycling.

This puts us at the forefront of high-energy density battery technology with the potential to be a game changer in industries such as drones, electric aviation, defence and security. Now in the same weight package, we can substantially extend range, payload capacity and flight times compared to equivalent lithium-ion cells.

First Battery Pack Trial

In most applications, battery packs are used instead of single battery cells, so proving capability in a battery pack is important.

Using twelve of the latest 456Wh/kg Phase 3 cells we built a trial battery pack in a 6S2P configuration, designed to power our first significant UAV test flights.

Appropriate safety and on-ground performance testing was completed successfully with the pack proving its capabilities before our first flight tests.

Successful UAV Flights

In early November our team integrated the trial battery pack into the airframe of a 2.4 metre wingspan, fixed wing, single motor uncrewed aircraft.

Test flights were successfully completed with a total flight time of 30 minutes using a single battery pack with no intermediate recharge. The battery pack was only partially discharged at the end of the tests. Importantly, on return to the LIS facility, the battery pack recharged successfully.

This was a tremendous achievement by the team, not only demonstrating the capability of our technology to power a fixed wing UAV but also providing invaluable design and operating data to help inform our battery pack development for the Emerging Aviation Technology Partnerships (EATP) "dawn 'til dusk" drone program with V-TOL Aerospace and Halocell.

The "dawn 'til dusk" drone development also progressed rapidly during the quarter. This program also includes the development of a sophisticated battery management system (BMS) for our cells that was absent from our initial UAV flight testing. To incorporate this critical development and IP, we are focussing on the EATP drone to conduct additional testing at different flight durations and profiles in the coming months.

Lithium Foil Extruder passes FAT

In August we were awarded a $1.7M Industry Growth Program (IGP) grant to build Australia's first lithium foil production line. This will manufacture foil for our own battery anodes and enable us to market high quality foils globally to generate early revenue.

I am pleased to report that the lithium foil extruder passed factory acceptance testing (FAT) ahead of schedule, with installation on site expected in March.

Li-S Energy wins prestigious Award

In December I had the honour of accepting the SIMPAC "Most Promising Future Technology" award, on behalf of our team. This award was particularly pleasing as SIMPAC assesses companies across the entire spectrum of sustainable technologies, from hydrogen and green fuels to solar and energy storage.

Dr Lee Finniear
Chief Executive Officer

Highlights, material developments and changes

Q4 '24

Successfully achieved 456Wh/kg cell energy density after formation cycling

Completed our first successful UAV test flights using a Li-S Energy lithium-sulfur battery pack

Proudly awarded "Most Promising Future Technology"

Our 2024 AGM was held at our production facility and all resolutions were passed

First battery packs built and tested using cells from our Phase 3 production line

Lithium foil extruder machine passed Factory Acceptance Testing (FAT)

Scan or click the QR Code to watch our UAV test flight

The Company had $20.3 million in current assets at 31 December 2024

Li-S Energy

Our semi-solid-state cells achieve 456Wh/kg after formation cycling

In October, the Company achieved a significant milestone in its lithium-sulfur battery development, achieving 498Wh/kg on first discharge and 456Wh/kg after formation cycling* in its semi-solid-state pouch cells. These cells, produced at the Company's Phase 3 automated production facility, continue to undergo testing.

Designed for high-growth sectors such as drones, defence, and electric aviation, these advanced cells offer substantial weight reductions, improving range, payload, and operational efficiency. The cells incorporate Li-S Energy's (LIS) GEN3 semi-solid-state chemistry, first announced in April 2023.

LIS's Chief Technology Officer, Dr. Steve Rowlands, highlights the importance of full-size commercial cell testing to deliver reliable results:

"Many R&D institutions and battery start-ups test performance on coin cells or very small pouch cells, reporting energy densities that are significantly higher than real-world performance. At LIS, we take a more pragmatic approach, testing full-size 10Ah and 20Ah pouch cells from our automated production line to ensure our data reflects practical cell performance."

Media Coverage

The cell performance announcement received significant media attention in Australia and globally, with 41 unique articles and mentions across various outlets. Highlights include coverage in *The Australian Herald*, *Business Insider*, and *PV Magazine*, plus an interview with our CEO, Dr. Lee Finniear on Ausbiz.

LIS lithium-sulfur cells are achieving breakthrough performance and have been delivered to the first of our key partners for battery pack testing

***What is formation cycling and why is it important?**

Formation cycling is when the battery manufacturer charges and discharges every new battery cell a number of times before delivery to a customer. During these *"formation cycles"* a number of irreversible chemical changes occur including the formation of solid electrolyte interfaces that are essential for the cell to perform more predictably. Unlike many battery technology developers, we quote our energy density after formation cycling as this is the practical energy density as delivered to the customer.

LIS completes successful UAV test flights

In November, the Company achieved a significant milestone by successfully completing its first uncrewed aerial vehicle (UAV) test flights powered by a twelve-cell lithium-sulfur battery pack.

A video of the flights is available here.

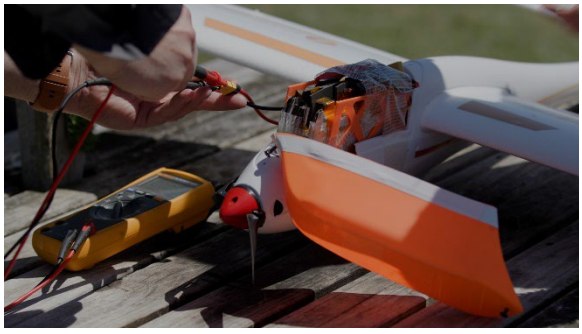
These tests showcased the ability of LIS' cells to be configured into a lightweight, high-performance battery pack, which was then integrated into a fixed-wing UAV. The aircraft, with a 2.4-metre wingspan and a single motor, completed multiple test flights, including take-off, ascent, aerial manoeuvres, level flight, and safe landings.

The 6S2P battery pack used for the tests featured twelve 10Ah LIS cells from the Phase 3 production line. With a nominal voltage of 11.4V, a 20Ah capacity, and a total weight of just 550 grams, giving a pack energy density of around 415Wh/kg. A single pack powered flights totalling 30 minutes without recharging and with capacity remaining on completion. The pack was then recharged successfully to complete further charge-discharge testing.

With these successful flight tests completed, the resulting IP and operational data is now informing battery pack construction for the EATP "dawn 'til dusk" drone program. Larger and more sophisticated, the EATP drone battery pack also integrates our advanced battery management system. To incorporate this critical development and IP, we are focussing on the EATP drone to conduct additional testing at different flight durations and profiles in the coming months.








Most Promising Future Technology

In December, LIS proudly received the *"Most Promising Future Technology"* award at the SIM-PAC Live Sustainability Conference.

The Award was particularly significant as it was judged across all areas of sustainability technology, from hydrogen to biofuels to solar and energy storage.

This recognition highlights our groundbreaking advancements in sustainable battery technology and underscores our team's unwavering commitment to innovation with a purpose.

Our CEO, Dr. Lee Finniear, accepted the award on behalf of the LIS team, marking another milestone in industry recognition of our world-leading technology,

Li-S Energy CEO, Dr. Lee Finniear accepting the award at the SIM-PAC Live Sustainability Awards

AGM & Shareholder tour

On 11th November LIS held its Annual General Meeting at its Phase 3 Production Facility in Geelong, Victoria. Shareholders were invited to attend in person, where they had the opportunity to tour our newly completed dry room, production lines and testing facilities. The event drew significant interest, with many shareholders taking up the invitation to gain first-hand knowledge of how the production line operates and experience Australia's largest pouch cell production facility.

Our Chief Technology Officer, Dr. Steve Rowlands, lead the facility tour for our shareholders. He highlighted the company's key accomplishments and offered a detailed explanation of the pouch cell manufacturing process, underscoring our commitment to innovation and operational excellence. Shareholder feedback was overwhelmingly positive, reflecting the value of these in-depth demonstrations in fostering a deeper understanding of our technological capabilities.

Our CTO, Dr. Steve Rowlands providing Shareholders with a tour of the LIS battery Testing Centre

Dr. Steve Rowlands explaining the pouch cell manufacturing process to Shareholders in our state-of-the-art dry room

Summary of expenditure

Please refer to Appendix 4C below for the detailed quarterly cash flow report, including a summary of the Company's expenditure on the above activities.

Net cash outflows used in operating activities during the quarter were $723,000. This was primarily driven by:

- Total staff costs of $859,000, of which $411,000 was reallocated to investing activities and capitalised against intellectual property and property, plant and equipment;
- Payments for research and development associated with government grants received of $255,000;
- Payments for administration and corporate costs of $864,000, consisting of payments for management support services to a subsidiary of PPK Group Limited of $240,000, and other administration and corporate costs of $624,000; and
- Partly offset by government grants of $300,000, interest income of $377,000 and a GST refund received of $188,000.

The net cash outflows used in investing activities during the quarter were $395,000, consisting primarily of:

- Payments for property, plant and equipment of $237,000, primarily related to equipment purchases associated with the phase 3 production facility of $67,000, and capitalisation of employee costs of $170,000;
- Payments for intellectual property of $302,000, mainly reflecting capitalisation of employee costs against the development activities undertaken of $241,000; and
- Partly offset by government grants received in relation to payments for intellectual property and plant and equipment of $144,000.

The net cash outflows from financing activities for the quarter were $955,000, consisting of payments for shares acquired by the employee share trust of $900,000 and repayments to its lease liabilities of $55,000, accounted for in accordance with AASB 16 *Leases*.

Use of funds

Pursuant to Listing Rule 4.7C.2, the Company provides in Table 1 below, a comparison of its actual expenditure on the individual items in the "use of funds" statement since the date of admission to the official list against the estimated expenditure on those items in the "use of funds" statement in the IPO prospectus and an explanation of any material variances.

$'000	Use of funds estimate (per Prospectus)	% of Funds	Cash payments to 31 December 2024	% of actual funds expended against Cash Payments to 31 December 2024
Project Expenditure	29,113	85.63%	23,973	71.98%
Costs of the Offer	3,582	10.54%	2,236	6.71%
Other Working Capital	1,305	3.84%	7,097	21.31%
TOTAL	**34,000**	**100.00%**	**33,306**	**100.00%**

Table 1 – *Comparison of "use of funds" statement per prospectus to cash payments since the date of admission to the official list of the ASX to 31 December 2024*

For the purposes of the above "use of funds" table, the Company has allocated significant administration and corporate costs to the 'Other Working Capital' category. Per section 5.11 of the Prospectus, the Company held additional funds from pre-IPO capital raisings for the purpose of funding working capital requirements. The 'Other Working Capital' cash payments to 31 December 2024 includes the secured loans advanced in the year ended 30 June 2023, along with cash outflows related to the acquisition of investments. The total cash at the date of IPO was $50,563,000. Total cash as at 31 December 2024 was $17,658,000.

The material variances above are a result of both the inclusion of all cash payments in the table versus the use of funds estimate, which excluded the pre-IPO capital raisings and deployment of funds into investments, along with the timing of the actual cash payments versus the use of funds period estimate utilised in the IPO prospectus, being the period to 31 December 2024. Furthermore, expenditure does not occur in a linear manner, with actual cash payments evolving as the Company progresses towards the completion of the construction and fitout of the phase 3 facility.

Payments to associates or related parties

In accordance with Listing Rule 4.7C.3, the Company advises that it paid $393,000 to related parties of the Company during the quarter, consisting of:

- payments to Deakin University of $23,000 relating to project activities undertaken in relation to the Recycling and Clean Energy Commercialisation Hub Research Framework Agreement, which forms part of the Federal Government's Trailblazer Universities Program;
- payments to Deakin University of $116,000 relating to various lease agreements for production bays (including outgoings) at Deakin's ManuFutures advanced manufacturing hub in Geelong, Victoria;
- payments to a subsidiary of PPK Group Limited of $240,000 for management support services provided in accordance with the relevant agreement, and as disclosed in section 12.6 of the Prospectus; and
- payments to subsidiaries of PPK Group Limited of $14,000 for purchase of nanomaterials, recovery of contracted labour costs, and pass through of costs incurred on behalf of the Company.

CORPORATE DIRECTORY (as at 31 December 2024)

Li-S Energy Ltd ABN 12 634 839 857

A public company incorporated in Queensland and listed on the ASX (code LIS)

Chief Executive Officer	Dr Lee Finniear
Chief Financial Officer	Ms Sarah Price
Board of Directors	Mr Benjamin Spincer Ms Hedy Cray Mr Marc Fenton
Company Secretaries	Mr Will Shiel Mr Liam Fairhall
Registered Office	Level 13 120 Edward St Brisbane QLD 4000 p +61 7 3054 4555 e info@lis.energy w lis.energy
Stock Exchange Listing	ASX Code: LIS
Auditor	Ernst & Young
Share Registry	Automic Share Registry Level 5, 126 Phillip Street Syndey NSW 2000 www.automicgroup.com.au
Media Enquiries	media@lis.energy

Li-S Energy

Appendix 4C

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

Name of entity	
Li-S Energy Limited	
ABN	**Quarter ended ("current quarter")**
12 634 839 857	31 December 2024

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (6 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	1
1.2	Payments for		
	(a) research and development	(255)	(384)
	(b) product manufacturing and operating costs	-	-
	(c) advertising and marketing	-	-
	(d) leased assets	-	-
	(e) staff costs	(448)	(802)
	(f) administration and corporate costs	(864)	(2,344)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	377	678
1.5	Interest and other costs of finance paid	(21)	(44)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	300	300
1.8	Other – GST refunds	188	342
1.9	**Net cash from / (used in) operating activities**	**(723)**	**(2,253)**

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	(237)	(1,291)
	(d) investments	-	-
	(e) intellectual property	(302)	(1,271)
	(f) other non-current assets	-	-
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	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (proceeds from government grants)	144	670
2.6	**Net cash from / (used in) investing activities**	**(395)**	**(1,892)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue 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	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(55)	(108)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (purchase of shares in Li-S Energy Limited by the employee share trust)	(900)	(900)
3.10	**Net cash from / (used in) financing activities**	**(955)**	**(1,008)**

Consolidated statement of cash flows	Current quarter $A'000	Year to date (6 months) $A'000

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	19,731	22,811
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(723)	(2,253)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(395)	(1,892)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(955)	(1,008)
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**17,658**	**17,658**

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	17,658	19,731
5.2	Call deposits	-	-
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)**	**17,658**	**19,731**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	370
6.2	Aggregate amount of payments to related parties and their associates included in item 2	23

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

7.	**Financing facilities** *Note: the term "facility' includes 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 $A'000**	**Amount drawn at quarter end $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 quarter end**	-

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

N/A

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(723)
8.2	Cash and cash equivalents at quarter end (item 4.6)	17,658
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	17,658
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)**	24.4

Note: if the entity has reported positive net operating cash flows 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.

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 flows 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 operations 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

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

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 gives a true and fair view of the matters disclosed.

Date: 31 January 2025

Authorised by: .....The Board…….....
(Name of body or officer authorising release – see note 4)

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.