

31 October 2023

September Quarter Activities Update

Highlights

- US Department of Defense named BluGlass as a member of the Commercial Leap Ahead for Wide Bandgap Semiconductors (CLAWS) Hub
- Custom gallium nitride (GaN) laser order received from leading USA-based research laboratory – a repeat customer
- The anticipated \$7.3 million R&D Tax Rebate is expected to be received in early November 2023
- Appointed Samuel Samhan as Chief Financial Officer (CFO) to support growth

Global semiconductor developer BluGlass Limited (**ASX: BLG**) provides the following update and Appendix 4C Quarterly Report for the three months ended 30 September 2023 (Q1 FY24).

Named member of CLAWS Hub

In October, BluGlass was named a member of the Commercial Leap Ahead for Wide Bandgap Semiconductors (CLAWS) Hub - one of eight Microelectronic Commons (ME Commons) innovation hubs established by the US Department of Defense (DoD). Designed to accelerate the lab-to-fab transition and mitigate supply chain risks for cutting-edge microelectronics, the eight hubs were awarded a combined US\$238 million in CHIPS and Science Act funding by the DoD for the first year, as part of the US\$2B allocated to the program from FY23-27.

Led by North Carolina State University (NCSU), the CLAWS Hub received US\$39.4 million in funding and comprises seven members including BluGlass, Coherent, General Electric, and Wolfspeed. The contractual terms and funding agreement between NCSU and the seven Hub members remain under negotiation.

Wide bandgap semiconductors provide significant advantages over traditional silicon chips, offering higher voltage and temperature capacity. Applications include visible lasers for next-generation sensing, communications, AI, and quantum sensing and computing.

CEO Jim Haden said, "BluGlass is a leader in wide bandgap semiconductors with more than a decade of experience developing and manufacturing gallium nitride (GaN) semiconductors, and more recently, GaN lasers. The CLAWS Hub partnership perfectly aligns with our next-generation visible laser roadmap, and will leverage our proprietary Remote Plasma Chemical Vapour Deposition (RPCVD) technology. Visible lasers are used in a myriad of defence applications, including weapons systems, drones and autonomous vehicles, and war fighter outfitting.

"Our selection as a hub member is a testament to our aggressive progress along our technology roadmaps, combined with our vertically integrated laser production capability, and development of novel technologies, such as visible Distributed Feedback (DFB) lasers."

Growing customer engagement

BluGlass' flexible manufacturing and packaging strategy received further market validation during the quarter, with the Company receiving a project order of its gallium nitride (GaN) multi-mode lasers in custom bars from a repeat customer. Bars are part of BluGlass' flexible form factor offering with this order incorporating custom lenses, which attract a higher average selling price.

A leading USA-based research laboratory will use the lasers to further their research and innovation within high-powered scientific applications.

BluGlass is now working with multiple customers from industry-leading original equipment manufacturers (OEMs), a national lab, leading international research institutions to disruptive start-ups operating in most of its target verticals. These customers are working to qualify its laser products in real-world applications.

The Company's customers are testing its lasers in both existing applications, where they are looking for an alternative supplier to provide unmet needs for existing products, or flexible form factors for the development of next-generation products; and customers developing novel applications, where BluGlass is working to achieve "designed-in" status in custom and novel products.

"These distinct customer engagements continue to reaffirm our differentiated market approach, highlighting the need for a highly collaborative, flexible supplier who can meet custom needs, deliver underserved wavelengths, or provide more reliable supply through our dedicated pure-play GaN laser diode offering. We are highly encouraged by the calibre of customers and partners choosing to work with us. Our multi-pillared go-to-market strategy, in-demand product portfolio, combined with establishing highly valuable, strategic relationships with sizeable partners, continues to set the business up to grow market share for long-term sustainable success," said CEO Jim Haden.

CFO appointment

During the quarter, BluGlass appointed well-credentialed finance executive Samuel Samhan to the role of Chief Financial Officer (CFO) on a full-time basis. He brings two decades' financial leadership and commercial operations experience to BluGlass and has demonstrated experience scaling high-growth businesses to profitability. Previous roles include Chief Operating and Financial Officer at global health platform, Digital Wellness, and Head of Commercial and Business Transformation at Vitality Works – Sanitarium Workplace Health and Wellness.

Financials

Customer revenue of \$373k in Q1 FY24 encompasses foundry services for a European wafer developer and initial payments for laser orders.

Cash as at 30 September was \$172k, due to a delay in the receipt of the \$7.3 million R&D rebate. With the significant increase in the rebate amount, and the AusIndustry approval of BluGlass' US R&D expenditure, the delays relate to the ATO conducting a standard review prior to issuing the funds. The rebate relates to R&D carried out in Australia and the United States in FY23, and having answered all queries, the Company expects to receive this amount in full shortly.

The Company secured \$1.46 million R&D financing from Radium Capital on 5 October 2023.

BluGlass' research and development expenses for the September quarter were \$2,624k, inclusive of salaries, materials, and fabrication costs. Higher R&D costs are attributable to extra resources to support operations at its Silicon Valley fab and vertical integration. The Company is now comfortable with its staffing levels across the business.

Payments to related parties in Q1 FY24 were \$101k, comprising Chair and Non-Executive Director fees.

Activity Undertaken	Amount paid during the quarter \$'000
Laser Diode product development	\$2,585k
RPCVD development	\$39k
Total direct expenditure	\$2,624k

Outlook

BluGlass will continue to build momentum over the coming quarters, finalising in-sourcing of contract manufacturers at its Silicon Valley wafer fab, completing contract negotiations with the CLAWS Hub for BluGlass operations in FY24, securing repeat customer orders, qualifying its visible lasers within customer applications, and signing

distribution agreements. Improvements to the performance and reliability of its core violet and blue (405nm - 450nm) lasers will continue alongside development of its next-generation products and defence projects as part of the CLAWS Hub.

BluGlass continues to aggressively progress its technical and commercial roadmaps, delivering a portfolio of in-demand visible lasers, focused on addressing unmet market needs and solving customer challenges. Supporting this, large revenue-generating projects, such as the CLAWS Hub, further fast-track the Company's advanced roadmaps, strategically aligning with longer-term goals to bring forward development of novel architectures and RPCVD-enhanced lasers, and unlock market share growth. These products will create brighter, higher-performance lasers that are easier and more cost-effective for customers to use and integrate.

In addition, the Company is continuing to improve the quality, consistency, and reliability of launched products to enhance industry competitiveness. BluGlass' single-mode lasers are now approaching best-in-class with ongoing enhancements to vertical integration processes expected to drive further improvements. At the same time, the business will continue to collaborate with strategic partners on the development of GaN Distributed Feedback (DBF) lasers and Vertical Cavity Surface Emitting Lasers (VCSELs).

This announcement has been approved for release by the BluGlass Board.

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About BluGlass

BluGlass Limited (ASX:BLG) is a leading supplier of GaN laser diode products to the global photonics industry, focused on the industrial, defense, bio-medical, and scientific markets.

Listed on the ASX, BluGlass is one of just a handful of end-to-end GaN laser manufacturers globally. Its operations in Australia and the US offer cutting-edge, laser diode development and manufacturing, from small-batch custom lasers to medium and high-volume off-the-shelf products.

Its proprietary low temperature, low hydrogen, remote plasma chemical vapour deposition (RPCVD) manufacturing technology and novel device architectures are internationally recognised, and provide the potential to create brighter, better performing lasers to power the devices of tomorrow.

BluGlass' technical innovations are protected by 93 internationally granted patents and 17 trademarks in key semiconductor manufacturing jurisdictions.

Appendix 4C

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

Name of entity

BluGlass Limited

ABN

20 116 625 793

Quarter ended ("current quarter")

30 September 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	373	373
1.2 Payments for		
(a) research and development	(1,196)	(1,196)
(b) product manufacturing and operating costs		
(c) advertising and marketing	(24)	(24)
(d) leased assets	(240)	(240)
(e) staff costs	(1,998)	(1,998)
(f) administration and corporate costs	(412)	(412)
1.3 Dividends received (see note 3)		
1.4 Interest received	3	3
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (provide details if material)		
1.9 Net cash from / (used in) operating activities	(3,494)	(3,494)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities		
(b) businesses		
(c) property, plant and equipment	(595)	(595)
(d) investments		
(e) intellectual property		

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
	(f) other non-current assets (security deposits)		
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 (provide details if material)		
2.6	Net cash from / (used in) investing activities	(595)	(595)

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		
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	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,258	4,258
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(3,494)	(3,494)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(595)	(595)
4.4	Net cash from / (used in) financing activities (item 3.10 above)		
4.5	Effect of movement in exchange rates on cash held	3	3
4.6	Cash and cash equivalents at end of period	172	172

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	74	74
5.2	Call deposits	188	188
5.3	Bank overdrafts	(90)	(90)
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	172	172

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	101
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
<i>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.</i>		

7.	Financing facilities <i>Note: the term "facility" includes 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>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	90	90
7.2	Credit standby arrangements	160	160
7.3	Other (please specify)		
7.4	Total financing facilities	250	250
7.5	Unused financing facilities available at quarter end		160
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 or are proposed to be entered into after quarter end, include a note providing details of those facilities. A temporary bank overdraft of \$250,000 from Commonwealth Bank of Australia with an end date of 31 October 2023 and an interest rate of 16.18% p.a.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(3,494)
8.2	Cash and cash equivalents at quarter end (item 4.6)	172
8.3	Unused finance facilities available at quarter end (item 7.5)	160
8.4	Total available funding (item 8.2 + item 8.3)	332
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	0.1
	<i>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.</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 flows for the time being and, if not, why not?	
	Answer: The company does expect to have funds to meet its net operating cashflows for the following reasons: 1) The FY 2023 R&D rebate of \$7.3 million is expected to be received in early November 2023 2) The company secured \$1.46 million R&D Financing from Radium Capital on 5 October 2023 3) The company is generating revenue from product sales; on 5 October 2023 the company announced being selected as part of the ME Commons program, which will also generate revenue 4) The company can access additional R&D financing for the anticipated R&D grant for the 30 June 2024 year end as well as forward capital raises.	

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:

Yes, please refer to answer 8.6.1

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:

Yes, with the anticipated R&D rebate, product and partnership revenues and its previous success in raising capital, the entity believes it will have sufficient working capital to meet its operational objectives for the remainder of the financial year.

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.

31 October 2023

Date:

By the Board of Directors

Authorised by:
(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.