



**Graphene Manufacturing Group**

**Management's Discussion and Analysis  
For the years ended June 30, 2023 and 2022**

**(in Australian dollars)**



This Management's discussion and analysis ("MD&A") provides a review of Graphene Manufacturing Group Ltd's ("GMG" or the "Company") operations, performance and financial position for the years ended June 30, 2023 and 2022. This MD&A should be read in conjunction with the audited consolidated financial statements for the years ended June 30, 2023 and 2022. The purpose of this document is to provide information on GMG's activities. The information contained herein is dated as of September 29, 2023.

Further information about GMG, including the Company's Annual Information Form ("AIF") expected to be dated on or around October 18, 2023, that does not form part of, nor is incorporated within this MD&A, is available on GMG's website and on SEDAR+ (the official site of the Canadian Securities Administrators, which is publicly available), including all news releases.

The period from April 1, 2023 to June 30, 2023 has been referred to as Q4FY23 and the period from April 1, 2022 to June 30, 2022 has been referred to as Q4FY22. The financial year ended 30 June 2023 has been referred to as FY23 and the financial year ended 30 June 2022 has been referred to as FY22. The period from July 1, 2023 to September 30, 2023 has been referred to as Q1FY24. The period from October 1, 2023 to December 31, 2023 has been referred to as Q2FY24.

The financial statements of GMG and extracts of those financial statements provided in this MD&A have been prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"). The Company has consistently applied the accounting policies used in the preparation of its IFRS financial statements from period to period, including the comparative figures. References to the symbol AUD or \$ or A\$ means the Australian dollar, the official currency of Australia. References to the symbol CAD or C\$ mean the Canadian dollar. References to "K" indicate thousands. Except as otherwise set out herein, all amounts expressed herein are in Australian dollars, the functional and presentation currency of the Company. As a result of the rounding of dollar differences, certain total dollar amounts in this MD&A may not add exactly to their constituent amounts. Throughout this MD&A, percentage changes are calculated using numbers rounded as they appear. Readers are cautioned that this MD&A contains certain forward-looking information. Please see the "Forward Looking Statements" section which follows.

**(Unless specified otherwise, all financial amounts are expressed in Australian dollars)**

## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This MD&A contains “forward looking statements” that reflect the Company’s expectations and projections about its future results. When used in this MD&A, forward looking statements can be identified using words such as “may”, or by such words as “will”, “intend”, “believe”, “estimate”, “consider”, “expect”, “anticipate”, and “objective” and similar expressions or variations of such words. Forward looking statements are, by their nature, not guarantees of the Company’s future operational or financial performance and are subject to risks and uncertainties and other factors that could cause the Company’s actual results, performance, prospects or opportunities to differ materially from those expressed in, or implied by, these forward-looking statements. No representation or warranty is intended with respect to anticipated future results, or that estimates, or projections will be sustained.

In developing the forward-looking statements in the MD&A, the Company has applied several material assumptions, including the availability of financing on reasonable terms, the Company’s ability and general business and economic conditions. Many risks, uncertainties and other factors could cause the actual results of GMG to differ materially from the results, performance, achievements or developments expressed or implied by such forward-looking statements. These risks, uncertainties and other factors include, but are not limited to the following: overall economic conditions, technical de-risking and market acceptance for GMG’s products and solutions, the introduction of competing technologies/products, environmental and regulation requirements, competitive pressures, change in market conditions and other factors that may cause the actual results, performance or achievements to differ materially from those expressed or implied in these forward-looking statements.

Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of the MD&A or as of the date otherwise specifically indicated herein. Due to risks and uncertainties, including the risks and uncertainties elsewhere in this MD&A, actual events may differ materially from current expectations. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. All forward-looking statements contained in the MD&A are expressly qualified in their entirety by this cautionary statement.

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## BUSINESS OVERVIEW

### Company Brief

GMG is a clean-technology company which seeks to offer energy saving and energy storage solutions, enabled by graphene, including that manufactured in-house via a proprietary production process.

GMG has developed a proprietary production process to decompose natural gas (i.e. methane) into its elements, carbon (as graphene), hydrogen and some residual hydrocarbon gases. This process produces high quality, scalable, 'tuneable' and low/no contaminant graphene with low-cost inputs suitable for use in clean-technology and other applications. The Company's present focus is to de-risk and develop commercial scale-up capabilities, while continuing to develop and expand market applications.

GMG is listed on the TSX Venture Exchange ("TSXV") under the ticker "GMG" and is also quoted on Tradegate in Germany under "OGF". GMG understands that its shares may have traded on OTCQB under "GMGMF". This quotation was initiated by third party market participants, not GMG. Certain GMG share warrants trade on TSXV under the ticker "GMG.WT".

GMG's strategy has evolved over time. While GMG graphene may be suitable for a wide range of industries, GMG has narrowed its focus to target select applications and industries. GMG's management team ("**Management**") believes that focusing on downstream applications will provide a higher return on in-house graphene production. Also, the vertically integrated approach will enable it to build a long-term competitive advantage. In line with this approach, GMG's initial focus has been developing applications for energy savings and energy storage.

Within energy savings, GMG has focused on THERMAL-XR<sup>®</sup>, a graphene enhanced coating platform that enhances heat transfer and corrosion protection. Initial commercial applications are in the heating, ventilation, air conditioning and refrigeration ("HVAC-R") sector. Other industry sector applications are being pursued. G<sup>®</sup>LUBRICANT, a graphene enhanced lubricant additive that seeks to reduce fuel consumption and carbon emissions by reducing internal friction in engines is also being demonstrated.

Since the recent Australian Government approval for GMG to produce and sell THERMAL-XR<sup>®</sup> at scale in early 2023, the Company has driven sales activities and is in the process of bolstering related production capacity. Important first sales at scale have recently been secured and the Company's efforts to widen potential market segments is finding positive reception providing strong encouragement for continued sales focus targeting notable near-term revenues. GMG sales of THERMAL-XR<sup>®</sup> in the HVAC-R market is expected to grow in various countries following the May 2023 and July 2023 HVAC-R Distributor signings (see Page 8). Additionally, the Company has identified a number of markets outside the HVAC-R segment, where it also sees expanded opportunities for application of the THERMAL-XR<sup>®</sup> platform.

In the energy storage segment, GMG and The University of Queensland are working collaboratively with financial support from the Australian Government to progress further research and development ("R&D") and commercialization of graphene aluminium-ion batteries ("G+Al Batteries"). The Company

is pleased overall with its progress and its growing ability to develop and manufacture battery prototypes in-house. As announced on May 17, 2023, GMG and Rio Tinto have signed a binding Joint Development Agreement with the goal of accelerating the development and application of GMG's Graphene Aluminium-Ion batteries for use in the mining and minerals industry (refer to page 12 for further details).

As at June 30, 2023, GMG had a cash position of \$4,648K and no debt other than lease liabilities. The net loss for the year was \$9,324K, including the change in fair value of warrants. As outlined in more detail below, the adjustments included in net results, required by IFRS to account for certain warrants on issue, are a non-cash item and largely result from movements in GMG's share price during the period. Subsequent to 2023 financial year end, the Company undertook a market raise in August 2023 of C\$3.45m, strengthening its capability to continue to accelerate its sales and progress its development activities.

The ability of the Group to continue as a going concern is principally dependent upon the ability to raise additional capital or secure other forms of financing, to augment its current cash position, as and when necessary to meet the levels of expenditure required for the Group. This is required to continue its ongoing development and commercialisation of energy saving and energy storage solutions and to meet the consolidated Group's working capital requirements. These conditions give rise to material uncertainty which may cast significant doubt over the Group's ability to continue as a going concern.

Q4FY23 EBITDA was a loss of \$1,524K (refer page 16 for details for non-IFRS adjustments).

The Company has had a number of Board Director changes, most recently in Q1FY24 being the addition of Bob Galyen, a leading battery industry expert, Andrew Small, an experienced business developer, and Jack Perkowski, an experienced financier and business developer, and the departure of Frederick Kotzee who was also CFO. Frederick's role as CFO is currently subject to an external search process with Scott Richardson appointed as Interim CFO.

Scott comes with over 20 years of finance leadership roles including as CFO, Financial Controller and other financial roles in publicly listed and private companies – including Austin Engineering, Downer Mining, Cleanaway, Macarthur Coal, BGW Group, quantum crypto key company Quintessence Labs and cloud marketing technology company XPON. Scott has a Bachelor of Business (Accounting), Graduate Diploma of Business Administration and is a Fellow of CPA Australia.

## Business Objectives

GMG is focused on four critical objectives:

1. **Produce Graphene & Improve/Scale Production Process.**
2. **Build Revenue from Energy Savings Products.**
3. **Develop Next-Generation Battery.**
4. **Develop Supply Chain, Partners & Project Execution Capability.**

### **Business Objective 1: Produce Graphene & Improve/Scale Production Process**

GMG expects ongoing iteration and improvement over time of the graphene quality from the GMG graphene production process. GMG has increasing confidence that it has found an economically sustainable path to scale the graphene manufacturing and treatment process.

The Phase 1 expansion project to the Company's Graphene manufacturing facilities announced in August 2022 continues to progress and is expected to provide additional graphene supply for the ongoing development of Company's graphene aluminium-ion battery prototypes ("G+Al Battery"), as well as the Company's energy saving products. The initial scope of the Phase 1 project has been continuously optimised to be fit for purpose and is expected to commence operations in the second half of 2023 as previously reported.

As announced on February 13, 2023, GMG received full and final approval for all its Graphene products from the Australian Industrial Chemicals Introduction Scheme ("AICIS") of the Australian Government Department of Health and Aged Care under Assessment statement CA09624. This AICIS approval allows GMG to significantly increase the production and sale of GMG graphene-enhanced products to industrial customers in Australia and in countries where no further international approvals are needed. Regulatory approvals are being sought in targeted other markets where required.

### **Business Objective 2: Build Revenue from Energy Savings Products**

#### **THERMAL-XR®**

As announced in September 2022, GMG completed the acquisition of the manufacturing intellectual property and brand rights of OzKem Pty Ltd.'s ("OzKem") THERMAL-XR® coating products (the "OzKem Transaction"). Together with the abovementioned regulatory approval and encouraging customer feedback (refer below) the Company undertook and recently announced that it has commissioned its own graphene enhanced coating blending plant and it is now operational after making its first 1000 litre blend.



GMG has also installed laboratory facilities for quality and control requirements and progressing research and development, to extend and enhance the THERMAL-XR® platform into additional industries and applications.

After a period of customer demonstrations supported by external verification of the potential energy saving results of TXR the Company has seen increasing interest maturing into both larger sales as well as signing of international distributor arrangements. These include a sales order for over AU\$130,000 (including GST) for THERMAL-XR® sales and service for a large Australian eco-friendly resort for the coating of nearly 200 air conditioners in April 2023 that is scheduled to be completed in Q2FY24.

GMG has signed distribution agreements with four international distributors to buy GMG's THERMAL-XR® and resell in their respective countries in the Heating Ventilation Air Conditioning and Refrigeration (HVAC-R) markets - Thailand, Singapore, Indonesia and South Korea. GMG and certain of the Distributors have successfully completed several THERMAL-XR® HVAC-R projects in South East Asia to provide case studies that illustrate the product's local benefits and customer value proposition in these countries and first orders have been received.

GMG has also signed a THERMAL-XR® distribution agreement with Nu-Calgon Wholesaler, Inc ("Nu-Calgon"). Nu-Calgon is the leading Heating Ventilation Air Conditioning, and Refrigeration (HVAC-R) specialty chemical supplier in North America and will partner with GMG to provide THERMAL-XR® to the HVAC-R markets in the United States of America, Mexico, Canada and the Caribbean. Nu-Calgon, has been a leader in North America's HVAC-R aftermarket for over 70 years and distributes its products to thousands of distribution and stocking locations. THERMAL-XR® allows Nu-Calgon to continue distributing HVAC-R coatings to their existing distributors with the added value of graphene-enhanced superior heat transfer and corrosion protection.

GMG is in the process of obtaining USA EPA approval for the THERMAL-XR® and is reviewing the requirements for Canada, Mexico and the Caribbean countries. USA EPA approval is expected to be granted in Q2FY24 and preparations for the product launch in early 2024 are well underway.

Following the growing market success of THERMAL-XR® for HVAC purposes the Company is increasing efforts to demonstrate heat management benefits for other applications. THERMAL-XR® sales and third-party service projects in Southeast Asia have occurred – with applications in the data centre cooling sector representing a significant opportunity as according to the IEA it represents up to 1.3% of global electricity demand. Accordingly, the Company has commenced first discussions regarding projects with a number of data centre operators.

The Company is also in discussions with various mining, energy and gas producers in Australia, North America and Asia about the potential for application of the THERMAL-XR® platform to provide increased heat transfer and corrosion resistance for operations, including gas processing heat exchangers, notably liquefied natural gas (LNG) plants. GMG made an initial sale of THERMAL-XR® and coating by GMG for a micro-LNG plant in Australia in late 2022 with encouraging results.



## ENERGY SAVINGS AND HEAT TRANSFER VERIFICATION

GMG commissioned Supercool Asia Pacific Pty Ltd to undertake independent comparison tests to assess the impact of TXR in enhancing the operating efficiency of a cooling system. The first comparison test conducted was a Pull-Down Test which assessed the time and energy required to reach a set temperature of 20 degrees Celsius in a heat controlled room with an initial set temperature of 30 degrees Celsius, controlled constant humidity level, and an outdoor temperature of 35 degrees Celsius. This simulates a typical cold storage room with traffic subject to heat losses and required to cool down on multiple occasions to the set temperature. Supercool verified that a quicker time was observed to reach the set point cooling temperature, under the same conditions, highlighting a reduction in energy consumption for the THERMAL-XR<sup>®</sup> coated condenser coil. As seen in Table 1 the THERMAL-XR<sup>®</sup> coated coil resulted in 15.7% Energy Savings and a 16.1% time savings for the Pull-Down test.

Test	Average Duration	Time Reduction	Average Power (kW)	Energy (kWh)	Energy Reduction
Prior to THERMAL-XR <sup>®</sup> Coating	1:10:41	16.1% ▼	2.43	2.86	15.9% ▼
Post THERMAL-XR <sup>®</sup> Coated	0:59:17		2.44	2.41	

Table 1: Pull-Down time and energy consumed prior to and post TXR coating.

The second comparison test was an uninterrupted 48-hour Temperature Cycle test. This tests the impact of TXR on maintaining a constant set point temperature (for example where there is no periodic access to a cool room). The test measured the energy required over a 48-hour period to keep a cooling set temperature of 20 degrees Celsius in a heat-controlled room with an outside temperature of 35 degrees Celsius and controlled constant humidity level. Supercool verified that a lower amount of energy was required by the THERMAL-XR<sup>®</sup> coated unit, under the same conditions again highlighting energy savings. Table 2 shows the THERMAL-XR<sup>®</sup> coated coil delivered 4.69% Energy Savings for the 48-hour Temperature Cycle test. Full test results are available on the GMG website.

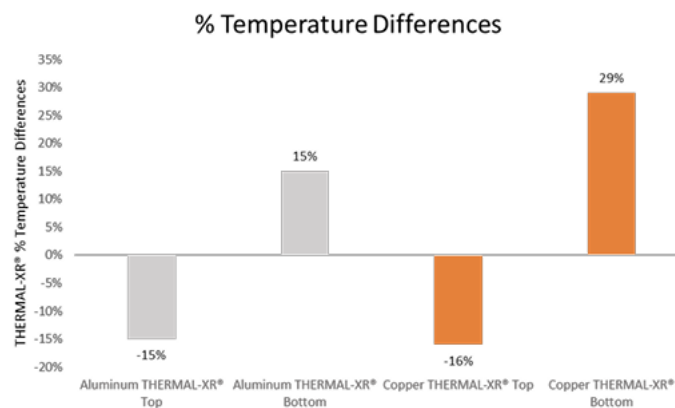
48 hour Cycle Test – Power Consumption			
Between 0-48 hours	Average power (kW)	Energy (kWh) per 24 hours	Energy Reduction
Prior to TXR coating	1.77	85.10	3.71% ▼
Post TXR coating	1.71	81.95	
<b>Between 24– 48 hours</b>			
Prior to TXR coating	1.76	42.14	4.13% ▼
Post TXR coating	1.68	40.39	
<b>Between 36– 48 hours</b>			
Prior to TXR coating	1.76	21.09	4.69% ▼
Post TXR coating	1.68	20.10	

Table 2: 48 Hour Cycle Energy Test Prior to vs Post TXR Coating

GMG has also been working with potential industrial customers to demonstrate the potential for improved heat management through the application of TXR. As part of this demonstration programme, GMG has commissioned the University of Queensland Materials Performance Consultancy to verify a number of heat transfer demonstrations.

GMG is pleased to report that the University of Queensland Materials Performance Consultancy ("UQMP") verified that GMG's THERMAL-XR®, demonstrations and results, when applied to Copper and Aluminium, reduced the surface temperature by 15-16% when operating between 70 degrees Celsius and 90 degrees Celsius.

These results, shown below, are very encouraging in outlining the application of TXR for various heat management applications creating the potential for operating efficiency and / or energy savings.



Temperature Increases and Decreases with TXR on Copper and Aluminium vs non TXR treatment

These independent results on top of customer trials provide both 'controlled' and 'real world' demonstrations and encouragement as to the potential significant commercial opportunity of the TXR platform.

### G®LUBRICANT

G®LUBRICANT is a concentrate of GMG Graphene and lubricating oil that is designed for ENERGY SAVINGS and EMISSION SAVINGS and wear prevention. The concentrate can be added to an existing fully formulated lubricant or tailored by Graphene Manufacturing Group as an addition to the client's choice of fluid. G®LUBRICANT protects the friction surfaces and reduces the friction coefficient by forming a protective layer between metal interfaces.

GMG continues to work with various Southeast Asian customers for infield testing and also carrying out its own diesel engine fuel testing. Current GMG diesel engine fuel testing is being carried out to examine fuel saving potential with the use of the G®LUBRICANT. The patent application for G®LUBRICANT is progressing through to country level – where GMG is currently applying in 20 countries for the in-country patent.

Further Research and Development assessment is in progress.

**Business Objective 3: Develop Next-Generation Battery**

GMG’s Battery Development Centre ("BDC") for its G+Al Batteries has been operational since Q2FY22 and was further upgraded during Q3FY22 enabling the research and development of battery prototypes in a spacious, fully integrated work environment. The BDC also incorporates the equipment required to assemble and test battery prototypes. The Company has also successfully increased its organisational capability by attracting new staff experienced in pouch cell development, thereby enabling the acceleration of its battery development and performance optimisation programme.

During Q4FY22, GMG commissioned additional pouch cell development equipment and produced the first single layer working pouch cell prototype.

During Q3FY23, GMG received regulatory and local council approvals for the commercial scale manufacturing of batteries at its existing Richlands site in Brisbane Australia. To date GMG has been adhering to a research and development regulatory approval to make battery cell prototypes. In addition, this site already has council approvals that allow GMG to manufacture its graphene. These regulatory approvals are an important step in GMG’s consideration at an appropriate future time to build and operate a battery manufacturing plant at the GMG Headquarters at Richlands.

In December 2022 GMG provided a further update on its ongoing investment in the Company’s BDC including an additional \$600,000 in capital expenditure, to accelerate the progress of semi-automatic pouch cell prototype production. At that time key members of GMG’s Battery Team visited its United Kingdom partners to inspect the partially built automated cell assembly equipment, and again in May 2023 for final acceptance testing and sign-off.



The additional CAPEX expenditure will assist with future optimisation, prototype development and production, consistency in performance and assembly times in the BDC. The additional equipment is now operational.

**RIO TINTO JOINT DEVELOPMENT AGREEMENT**

On May 17, 2023, GMG and Rio Tinto signed a binding Joint Development Agreement ("JDA") with the goal of accelerating the development and application of GMG’s Graphene Aluminium-Ion batteries in the mining and minerals industry. Rio Tinto will contribute technical and operational performance criteria and up to AU\$6 million, in exchange for preferential access rights.



The JDA builds on the existing collaboration for Rio Tinto to explore the use of GMG’s Energy Saving and Energy Storage solutions (see Company announcement on May 18, 2022). This JDA is effective immediately and is expected to last 2 years with payments spread over the term of the agreement. The JDA aims to co-develop GMG’s Graphene Aluminium-Ion battery pouch cell into an initial battery pack/module for a proof-of-concept trial.

Rio Tinto will seek to involve Original Equipment Manufacturers (“OEM”), including Heavy Mobile Equipment OEMs, to work with GMG and Rio Tinto to align the battery pack development requirements. Success could see performance enhancements for Rio Tinto, including faster charging and longer-life batteries for heavy mobile equipment and grid energy storage, as well as supporting Rio Tinto’s decarbonisation ambitions.

GMG will retain ownership of the intellectual property of the GMG Graphene Aluminium Ion Battery Pouch Cell and Battery Pack. On successful completion of the joint project, Rio Tinto would have the right to procure and use the batteries in their operations.

More broadly, significant customer feedback to GMG has reinforced the opportunity of the pouch cell battery format and this JDA with Rio Tinto is another example. Pursuant thereto, GMG will now re-prioritise its energies to developing Pouch Cell prototypes and will no longer pursue the commercialisation of coin cell batteries in the short to medium term.

**POUCH CELL DEVELOPMENT**

The development status of a commercial battery is commonly characterised with respect to various stages as outlined below.

The battery technology readiness level (“BTRL”) of the Graphene Aluminium-Ion technology has progressed to Level 4 (see Figure 3). GMG is currently optimizing electrochemical behaviour for pouch cells via ongoing laboratory experimentation.

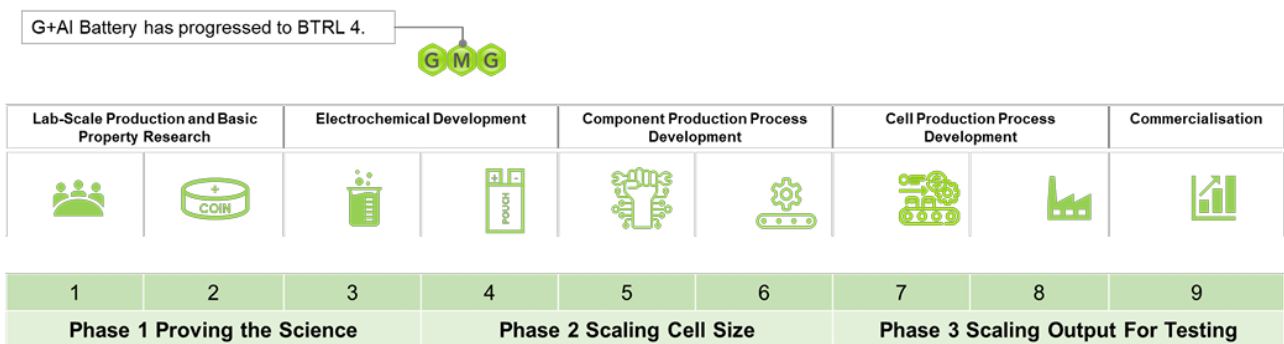


Figure 3: Battery Technology Readiness Level

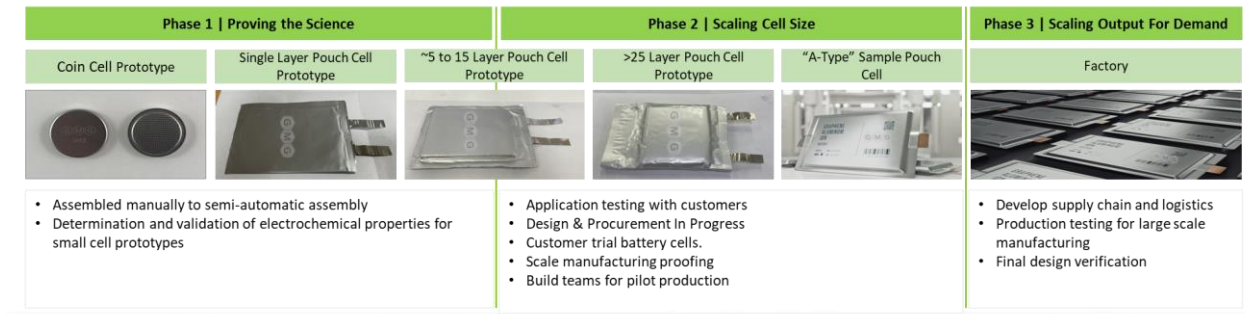
Source: “The Battery Component Readiness Level (BC-RL) Framework: A technology-specific development framework”, Matthew Greenwood et al

Source: “The Battery Component Readiness Level (BC-RL) Framework: A technology-specific development framework”, Matthew Greenwood et al





## POUCH CELL PROTOTYPE SCALE-UP PROCESS



On September 11, 2023, GMG announced that it has now made initial G+Al Battery prototype pouch cells (see Figure 1), which have a storage capacity of over 500 mAh, with a nominal voltage of ~ 2 volts. This is a significant development as it shows the Company has matured the battery electro-chemistry and assembly techniques of producing pouch cells with over 10 layers of graphene coated cathode and aluminium foil anode.

The next step for the Company is to optimise the assembly techniques of the pouch cell prototypes. This is to achieve repeatable storage capacity of over 500 mAh cells in order to conduct a variety of standard testing conditions for comparative purposes. The Company then intends to pursue producing cells with over 20 double-layers to get a storage capacity of 1000 mAh by using an automatic coating machine, cathode laser cutting equipment, and a semi-automatic stacker, to achieve reproduceable cells for validation trials. The aforementioned reproduceable cells target matches an objective in the Rio Tinto Joint Development Agreement, being the achievement of a repeatable capacity of 1000 mAh by H1 2024, followed by being able to produce this pouch cell at scale by H1 2025.

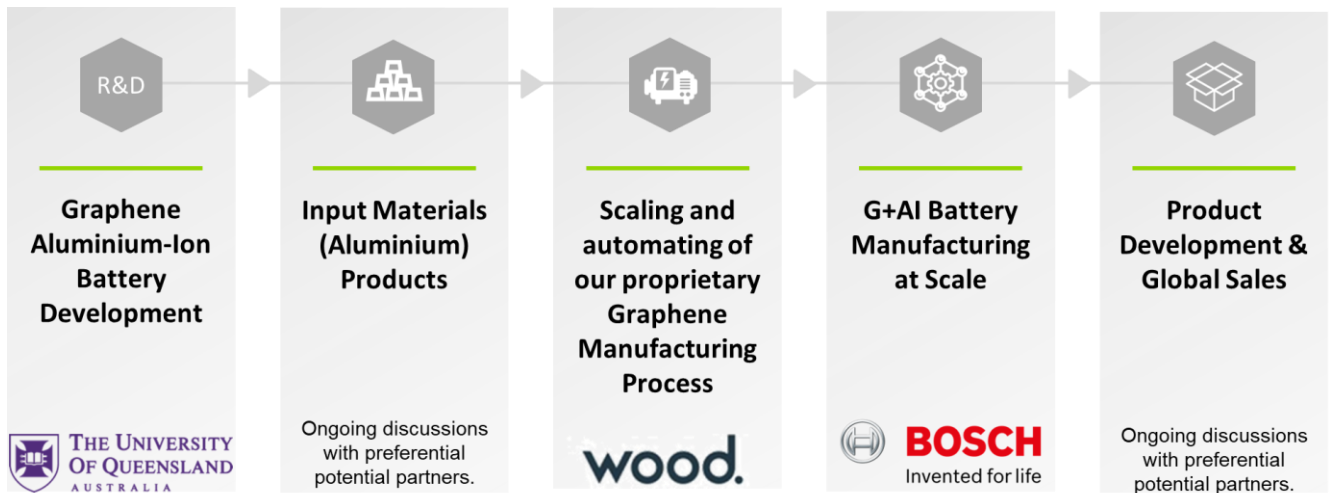
### Next Steps Toward Commercialisation & Market Applications

The Company continues to see a broad range of potential applications for a completed GMG Graphene Aluminium Ion Battery – utilising its ultra-high power-density and nominal energy density characteristics. A range of global companies have confidentially expressed their interest in working with GMG in the following vertical sectors:

- Diesel engine replacement (high load and power requirements)
- Energy storage (in front of, or behind the meter)
- Personal electronics (fast charging and long life)
- Aviation (including vertical take-off and landing)
- Electric vehicles - Other applications
- Rail or Locomotive

### Business Objective 4: Develop Supply Chain, Partners & Project Execution Capability

GMG continues to focus on developing and strengthening its battery value chain partnerships. GMG believes this approach will de-risk, optimise, position and accelerate GMG's G-Al Battery technology success.



Ongoing engagement between our partners continued throughout the quarter.

Wood is supporting the announced graphene manufacturing expansion and the Company is currently engaging with Bosch to further develop its understanding and framing of the automated battery manufacturing project for pouch cell batteries.

In addition to the Rio Tinto JDA, non-disclosure agreements have been signed with a number of international, high profile potential customers across a wide range of industry segments to explore opportunities to collaborate, understand their application requirements and priorities for the subsequent development and commercial production of GMG's battery prototypes.

The Company continues to assess the appropriate battery development and commercialisation pathway taking into account technical, engineering and customer perspectives.

GMG is a founding member of the Australian Advanced Material and Battery Council ("AMBC") that was officially launched at Queensland Parliament House in October, 2022. Craig Nicol is the council's Chair.

Mr Bob Galyen, based in Indiana USA, joined the Company's board of directors effective 1 July, 2023. Mr. Galyen has been an advisory member of the Company's Technical Advisory Committee since June 2022. Mr Galyen has global experience as a leading executive in the battery energy storage industry and science/engineering-based communities. Among his many roles Bob has been the Chief Technology Officer of Contemporary Amperex Technology Company Limited (CATL), which is the largest lithium ion battery manufacturer in the world, was Chair of the SAE International Battery Standards Steering Committee and is CTO and Chairman Emeritus of NATTBatt International. He serves on a number of Committees and Advisory Boards.

## SUSTAINABILITY AND RISK

“No Harm to People or Environment” remains at the core of GMG’s values. GMG also has the opportunity to “improve” through application of our energy saving products. The board appointed Sustainability & Risk Committee takes a holistic view of sustainability factors with a vision to enrich our environment and society. The United Nations 17 Sustainable Development Goals (“SDGs”) were identified as the benchmark for goal alignment and enabled the Sustainability & Risk Committee to identify key priority areas.

GMG is committed to focus on priority SDGs where the Company can best contribute. These are currently identified as:

- # 7 Ensure access to affordable, reliable sustainable and modern energy for all.
- # 13 Take urgent action to combat climate change and its impact.
- # 9 Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

These goals form part of the standing agenda within the Sustainability & Risk Committee and are aligned with goals in GMG’s business plan.

Following completion of the new Graphene plant, GMG is committed to providing transparent reporting on the Company’s carbon emissions footprint from its operations, verified by an independent party using the National Greenhouse and Energy Reporting Framework and guidance notes on estimating emissions and energy from industrial processes. Once GMG’s baseline carbon emissions are verified, GMG is committed to continued focus on Environmentally Sustainable Governance practices to ensure ongoing improvement within its business activities. Through the application and use of GMG’s products and services the Company will continue to maintain transparent reporting on its carbon footprint and carbon footprint reductions through the application of energy saving products and services with our customers.

## FINANCIAL HIGHLIGHTS

### Income Statement

\$'000 unless otherwise stated	12 month period ended June 30		Variation	
	2023	2022	\$'000	%
Revenue from operations	170	54	116	215%
Other income	3,225	1,462	1,763	121%
Employee benefit expenses	(7,108)	(4,408)	(2,700)	61%
Professional and consulting fees	(2,848)	(1,839)	(1,009)	55%
Depreciation and amortisation expense	(1,156)	(351)	(805)	229%
Travel expenses	(354)	(81)	(273)	337%
Raw material and production inputs	(49)	(35)	(14)	40%
Gain / (loss) on change in fair value of warrants	3,174	(4,559)	7,733	(170%)
Occupancy expenses	(358)	(206)	(152)	74%
Factory expenses	(402)	(276)	(126)	46%
Share based payments expense	(2,059)	(864)	(1,195)	138%
Other expenses	(1,383)	(604)	(779)	129%
Finance expenses	(176)	(63)	(113)	179%
<b>Loss before income tax</b>	<b>(9,324)</b>	<b>(11,770)</b>	<b>2,446</b>	<b>(21%)</b>
Income tax expense	-	-	-	-
<b>Loss for the period</b>	<b>(9,324)</b>	<b>(11,770)</b>	<b>2,446</b>	<b>(21%)</b>
Basic and diluted loss per share (cents)	(11.55)	(15.48)	3.93	(25%)
<b>Non-IFRS financial measures <sup>(1)</sup></b>				
EBITDA	(11,166)	(6,797)	(4,369)	64%
Adjusted loss before income tax	(12,498)	(7,211)	(5,287)	73%
Adjusted basic and diluted loss per share (cents)	(15.48)	(9.48)	(5.99)	63%

(1) Refer to Non-IFRS financial measures for further information.

### Balance Sheet

\$'000	As at 30	As at 30
	June, 2023	June, 2022
Cash and cash equivalents	4,648	12,258
Trade receivables, other receivables and contract assets	1,875	143
Research and development grants receivable	2,580	1,412
Inventories	361	350
Other current assets	392	318
Property, plant and equipment	4,385	2,162
Intangible assets	1,716	33
<b>Total assets</b>	<b>15,957</b>	<b>16,676</b>
Trade payables, other payables and contract liabilities	2,947	804
Lease liabilities	273	137
Financial liabilities	2,571	4,410
Employee benefit liabilities	219	207
Provisions	19	20
Long term liabilities	1,233	998
<b>Total liabilities</b>	<b>7,262</b>	<b>6,576</b>
<b>Total equity</b>	<b>8,695</b>	<b>10,100</b>



## Summary of Cash Flows

\$'000	For the year ended June 30		Variation	%
	2023	2022	\$'000	
Net cash used in operating activities	(10,553)	(6,568)	(3,985)	(61%)
Net cash used in investing activities	(3,441)	(1,080)	(2,361)	(219%)
Net cash from financing activities	6,365	16,547	(10,182)	(62%)
<b>Net increase / (decrease) in cash and cash equivalents</b>	<b>(7,629)</b>	<b>8,899</b>	<b>(16,528)</b>	<b>(186%)</b>

## Summary of Historical and Quarterly Financial Information for the years ending and as at 30 June

\$'000 unless otherwise stated	2023	2022	2021
Revenue and other income	3,395	1,516	1,259
Loss for the year from continuing operations	(9,324)	(11,770)	(8,110)
Basic and diluted loss per share (cents)	(11.55)	(15.48)	(13.40)
Total assets	15,957	16,676	4,944
Non-current financial liabilities	-	-	-
Dividends declared per share	-	-	-

### IFRS

\$'000 unless otherwise stated	Revenue	Other income	Profit / (loss)	Basic and diluted	Notes (IFRS)
				profit / (loss) per share (cents) <sup>(1)</sup>	
Q4-2023 June 30, 2023	56	3,057	(1,349)	(1.65)	1
Q3-2023 March 31, 2023	24	26	(2,634)	(3.22)	2
Q2-2023 December 31, 2022	4	-	(1,781)	(2.22)	3
Q1-2023 September 30, 2022	85	143	(3,559)	(4.51)	4
Q4-2022 June 30, 2022	17	1,413	1,764	2.25	5
Q3-2022 March 31, 2022	9	6	1,877	2.42	6
Q2-2022 December 31, 2021	15	39	(16,252)	(21.22)	7
Q1-2022 September 30, 2021	13	4	841	1.18	8

### NON-IFRS

\$'000 unless otherwise stated	Profit / (loss)	Less:	Adjusted Profit / (loss)	Adjusted basic and diluted profit / (loss) per share (cents)
		Adjustment items <sup>(1)</sup>		
Q4-2023 June 30, 2023	(1,349)	(107)	(1,456)	(1.78)
Q3-2023 March 31, 2023	(2,634)	(1,493)	(4,127)	(5.04)
Q2-2023 December 31, 2022	(1,781)	(2,267)	(4,048)	(5.04)
Q1-2023 September 30, 2022	(3,559)	693	(2,866)	(3.63)
Q4-2022 June 30, 2022	1,764	(3,452)	(1,688)	(2.15)
Q3-2022 March 31, 2022	1,877	(3,777)	(1,900)	(2.45)
Q2-2022 December 31, 2021	(16,252)	14,190	(2,062)	(2.69)
Q1-2022 September 30, 2021	841	(2,403)	(1,562)	(2.18)

(1) Refer to Non-IFRS financial measures for further information. Adjustment items relate to the change in fair value of warrants.

**Notes (IFRS):**

1. The loss of \$1,349K in Q4FY23 was driven by \$4,229K of operating expenses, primarily due to continued expansion of staff resources and scale up of business operations, offset by \$2,579K for the refundable FY23 R&D tax offset, recognition of \$375K of joint development income from a collaboration agreement, \$42K of research grants, as well as \$56K of TXR sales.
2. The loss of \$2,634K in Q3FY23 was primarily \$3,827K of operating expenses, primarily due to continued expansion of staff resources and increased costs of R&D for product development, offset by a gain from the reduction of in the fair value of financial liabilities of \$1,493K arising from changes in GMG's share price since the prior reporting date at December 31, 2022.
3. The loss of \$1,781K in Q2FY23 was primarily \$3,682K of operating expenses, that were higher due to increases in staff resources, offset by a gain from the reduction of in the fair value of financial liabilities of \$2,267K arising from changes in GMG's share price since the prior reporting date at September 30, 2022.
4. Revenue during the quarter included \$85K for TXR sales and installation, in addition to \$143K of additional refundable R&D tax offset, recoverable from further assets qualifying for immediate tax write-off. The higher loss in Q1FY23 is driven by increased staff employed, premises occupied and plant and equipment compared to Q1FY22. This accelerated growth is reflected in the higher employee, overhead and depreciation expenses, in addition to a \$693K increase in the fair value of financial liabilities due to the higher share price since FY22.
5. The profit in Q4FY22 was driven by higher revenue, mainly comprised of the refundable R&D tax offset of \$1,412K for FY22, as well as the gain recognised from the reduction in the fair value of financial liabilities. The reduction in fair value was attributable to GMG's lower share price at reporting date compared to the prior quarter end on March 31, 2022. Higher operating expenses were mainly driven by the increase in staff resources in line with the strategic growth of the business.
6. The profit in Q3FY22 was driven by a reduction in the fair value of financial liabilities due mainly to changes in GMG's share price compared to the prior reporting date at December 31, 2021. Lower revenues are considered a normal fluctuation given GMG's various products being at an early stage of commercialisation.
7. The increase in Q3FY22 losses was mainly due to fair value adjustments required to reflect the higher value of financial liabilities (warrants), due to share price increases during the quarter.
8. The profit in Q1FY22 was driven by a reduction in the fair value of financial liabilities due to a lower share price than the prior reporting period at the end of FY21. Lower revenues and other income were due mainly to the refundable R&D tax offset of \$736K and the \$84K Export Market Development Grant in the prior quarter and conclusion of a quarterly take or pay customer contract at 30 June 2021.

**Fourth Quarter Results**

\$'000 unless otherwise stated	Q4FY23	Q4FY22	Variation	
			\$'000	%
Revenue from operations	56	17	39	229%
Other income	3,057	1,412	1,645	117%
Total operating expenses	(4,229)	(2,982)	(1,247)	42%
Gain / (loss) from change in fair value of warrants	107	3,452	(3,345)	(97%)
Depreciation and amortisation	(341)	(135)	(206)	153%
Profit / (loss) for the period	(1,349)	1,764	(3,113)	(176%)
Basic and diluted earnings / (loss) per share (cents)	(1.65)	2.25		

Total income in Q4FY23 consisted primarily of other income from the FY23 refundable R&D tax offset of \$2,579k, which is finalised in the fourth quarter of each year.

Significant items which drove the loss for Q4FY23 in comparison to the profit for Q4FY22 included:

- Gain of \$107K in Q4FY23 recognised from the change in fair value of warrants compared to a gain of \$3,452K in Q4FY22 (see further details in 'Fair value of warrants' below);
- \$1,247K higher operating expenses in Q4FY23 due to scaled up operations since Q4FY22 primarily increased employee expenses, including share based payments;
- The gross refundable R&D tax offset of \$2,579k for FY23 was higher than the \$1,412K recognised for FY22, due to the scaled up business operations and increased research and development activities in FY23 compared to FY22; and
- \$375k of joint development income was recognised in Q4FY23 in respect of a collaboration agreement entered into in May 2023.

Further details of the Q4FY23 results and their impacts on the FY23 results are provided in the next 'Operations' section.

## OPERATIONS

### Non-IFRS financial measures

This MD&A refers to measures of EBITDA and adjusted profit and loss before income tax for the year and each quarterly period and adjusted basic and diluted loss per share that are measures with no standardised meaning under IFRS. They are non-IFRS measures and may not be comparable to similar measures presented by other companies. Their measurement and presentation is consistently prepared and is intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. Management considers these measures appropriate as they reflect the underlying operational performance of the business.

#### *Adjusted loss for the period and adjusted loss per share*

Adjusted loss for the period and adjusted loss per share are used by management and investors to measure the underlying operating performance of the Company. Adjusted loss for the period, excludes specific items that are significant but not reflective of the underlying operating performance of the Company, such as the impact of changes in the fair value of warrants. Adjusted loss per share amounts are calculated using the weighted average number of shares outstanding on a basic and diluted basis as determined by IFRS.

The following table provides the calculation of the adjusted loss for the period and adjusted basic and diluted loss per share, as adjusted and calculated by the Company:

\$'000 unless otherwise stated	12 month period ended June 30	
	2023	2022
Loss for the year	(9,324)	(11,770)
Less:		
Change in fair value of warrants	(3,174)	4,559
Total adjustment items	(3,174)	4,559
<b>Adjusted loss for the year</b>	<b>(12,498)</b>	<b>(7,211)</b>
<b>Loss per share<sup>(1)</sup></b>		
Basic and diluted (cents) <sup>(2)</sup>	(11.55)	(15.48)
Adjusted basic and diluted (cents) <sup>(3)</sup>	(15.48)	(9.48)
Weighted average number of ordinary shares - basic and diluted	80,744,815	76,035,720
(1) Due to the loss recognised for the years, all outstanding stock options, warrants, broker warrants, restricted share units and performance share units were excluded from the calculation of diluted loss per share due to their anti-dilutive effect.		
(2) Calculated using loss for the period over the weighted average number of ordinary shares as per IFRS.		
(3) Calculated using adjusted loss for the period over the weighted average number of ordinary shares (non-IFRS measure).		

## Revenue

\$'000	12 month period ended June 30		Variation	
	2023	2022	\$'000	%
Revenue from operations	170	54	116	215%
Grants, subsidies and tax incentives	2,764	1,443	1,321	92%
Interest, sundry and forex gains	461	19	442	2326%

Revenue from operations were higher at \$170K in FY23 compared to \$54K in FY22, comprising TXR kits sold to domestic HVAC service providers and internationally.

In April 2023, the Company received a sales order for over \$130,000 (including GST) for THERMAL-XR<sup>®</sup> sales and service for a large Australian eco-friendly resort for the coating of nearly 200 air conditioners. Revenue is being progressively recognised with the project scheduled to be completed in Q2FY24.

## Other income

Other income was mainly comprised of \$2,722K of refundable R&D tax offset (inclusive of \$142K additional recovered for the FY22 year), \$375K of joint development income and \$42K of grants received.

## Operating costs

The growth of the Company together with global economic market conditions have resulted in an increase in operating expenses. Management continues to prudently manage the pace of growth as



well as monitor inflationary pressures and control operating expenses where feasible. Shown in the table that follows, are total operating expenses, which exclude finance costs and depreciation and amortization.

*Operating costs*

\$'000	12 month period ended June 30		Variation	
	2023	2022	\$'000	%
Employee expenses	7,108	4,408	2,700	61%
Share based payments expense	2,059	864	1,195	138%
Plant expenses	451	311	140	45%
Professional and consulting fees	2,848	1,839	1,009	55%
Occupancy expenses	358	206	152	74%
Overheads expenses	1,737	685	1,052	154%
<b>Total operating expenses</b>	<b>14,561</b>	<b>8,313</b>	<b>6,248</b>	<b>75%</b>

Following is a description of, and commentary on the high-level expense categories of GMG:

*Employee expenses*

Employee expenses consist of salaries and employee related overheads (primarily superannuation and payroll tax).

Overall employee expenses increased from \$4,408k in FY22 to \$7,108k in FY23, primarily due to the expansion of staff resources, inclusive of \$561K staffing related costs. An increase in staff numbers has resulted in a corresponding increase in other staff related expenses and on-costs.

*Share based payments expense*

Share based payments includes share payments for all employees, directors, certain contractors and commercial transactions, such as shares issued for capital raising costs and shares issued for the purchase of IP, Trademark & Sole distribution rights for Thermal-XR.

The total amount to be expensed as employee share-based payments is determined by reference to the fair value of any options granted under the employee share option plan, and share units granted under the Share Incentive Plan:

- including any market performance conditions (e.g. the entity's share price); and
- excluding the impact of any service-based vesting conditions (for example, remaining an employee of the entity for a period of time).

The total expense is recognised over the vesting period, which is the period over which all of the specified vesting conditions are to be satisfied.

The fair value of shares issued as share-based compensation for goods or services rendered, is measured based on the value of those goods or services provided, expensed at the time of share issue.

Overall share-based payments expense increased from \$864K in FY22 to \$2,059K in FY23 due to the increase in staff numbers and relation to employee share payments, coupled with a capital raising event and the Ozkem THERMAL-XR IP purchase agreement.

#### *Plant expenses*

This includes raw materials and production inputs, general warehouse expenses, Health, safety and environment (“HSE”), machinery parts and consumables, repairs and maintenance (“R&M”) and other costs.

Plant expenses, excluding raw materials and production inputs, were \$402K in FY23, with the main difference to the \$276K spend in FY22 being higher machinery consumable, repairs and maintenance, and HSE costs incurred as capital works increased during FY23.

#### *Occupancy*

Occupancy expenses relate primarily to lease costs for the production facilities located at Sumner, Queensland held under short-term leases. These are short-term leases to which the IFRS 16 *Leases* exemption has been applied, and as such, lease costs are recognised on a straight-line basis as an expense.

The Company’s Richlands Headquarters and warehouse lease meets the recognition criteria as a right-of-use (“ROU”) asset under IFRS 16. The ROU asset and corresponding lease liability are recognised on the balance sheet with lease payments split between lease liability principal repayments and interest expense and therefore do not appear under occupancy expenses. Depreciation of the leased asset is recorded on a straight-line basis.

Overall occupancy expenses increased from \$206K to \$358K from FY22 to FY23, primarily due to \$87K higher rental outgoings and electricity costs associated with the Company’s Richlands headquarters lease, including the new warehouse lease from July 2022, which has resulted in a corresponding increase in all other occupancy expenses.

#### *Professional and consulting fees*

- Accounting, Audit & Tax Planning costs declined from \$351K in FY22 to \$318K in FY23 due to GMG internalising a greater portion of its finance function and efficiencies in planning and processes.
- Consultants and contracting expenses increased from \$625K in FY22 to \$1.53 million in FY23, reflective of the additional specialist technical consultants engaged throughout the business including for capital and research and development projects, North America sales representation and additional contract staff to assist with the expansion of staff resources;
- Investor Relations expenses declined slightly over last year from \$649K in FY22 to \$632K in FY23 primarily due to exchange rates movements.
- Legal expenses of \$369K in FY23 were higher than the \$213K incurred during FY22, due to additional legal consultation for various commercial agreements and matters, as well as base

shelf prospectus advisory costs, employment related agreements and ongoing domestic and international general advisory fees.

### *Overheads*

Insurance, IT, travel, sponsorships, other R&D related expenses, and various other expenses have been classified as 'Overheads'. While expenses such as IT related expenses, travel and marketing are expected to increase as the business grows, others such as licensing and registration, website, other R&D, filing fees and warrant transaction costs will be uncorrelated to the number of employees, product offerings or number of customers. The following are various operational sub-items that constitute 'Overheads', excluding the expensing of transaction costs, for which the change from FY22 to FY23 has been greater than \$10,000:

- International and domestic travel expenses collectively increased from \$81K in FY22 to \$354K in FY23 due to travel costs associated with investor engagements, R&D projects, sales representatives, technical advisory and marketing events;
- Insurance increased from \$145K in FY22 to \$322K in FY23, mainly due to increases in policy coverage and limits, ongoing business growth, and expansion of business premises since FY22;
- R&D external partner expenses increased from \$83K in FY22 to \$224K in FY23, mainly due to Stanford University expenses which were not yet present in FY22, as well as higher University of Queensland costs incurred for ongoing research projects;
- Testing and quality control expenses increased from \$85K in FY22 to \$220K in FY23 primarily due to increased costs associated with energy storage testing performed in conjunction with the University of Queensland and additional independent testing performed for Energy Savings TXR products, with results promoted via increased marketing and news releases in FY23;
- Filing fees of \$132K in FY23 were higher than the \$56K in FY22, due to the additional filing fees associated with the short form and base shelf prospectuses, new director appointments, annual information form and security-based compensation plans;
- Licensing and registration expenses were \$59K in FY23 compared to \$10K in FY22, mainly comprised of product approval application costs in respect of Australian Industrial Chemicals Introduction Scheme (AICIS); and
- IT expenses increased from \$80K in FY22 to \$120K in FY23, mainly due to the increased staff employed during the year.

### Fair value of warrants

The \$3,174K gain in FY23 resulting from the fair valuation adjustment recognised on the warrant liability was driven by a combination of share price sensitivities, higher interest rates and a decrease in the expected volatility compared to the previous reporting date among other factors.

The share purchase warrants impacted by this adjustment are certain warrants that are recognised by the Company as a derivative liability due to their Canadian dollar denominated, fixed exercise price being different to the Company's functional currency which is Australian dollars. IFRS requires such instruments to be treated as a derivative liability and not equity, until the warrants are exercised or expire. The fair value of the warrants is determined using the Black Scholes option pricing model at the period-end date, or the market trading price in respect of GMG's traded warrants.

There are no cash obligations for the Company relating to this liability. Changes in fair value will continue to be reported in subsequent periods until the warrants are exercised or expire at which time the derivative liability ceases.

A number of factors influence the warrant liability valuation including share price, interest rates and a volatility assumption. For example, share price increases may result in an expense recorded in the profit and loss in conjunction with any increase in the fair value of the warrant liability, while share price decreases, warrant exercises or a reduced time to expiry with the passage of time would result in a gain and decrease in the fair value of the warrant liability.

For warrants exercised, the cumulative difference between the fair value of the warrant liability recognised at grant date, and the fair value based on the GMG share price at exercise date, which is applied to profit or loss, is then extinguished as a liability, with the offsetting entry applied to equity.

### FINANCIAL POSITION, LIQUIDITY AND CAPITAL RESOURCES

Cash and cash equivalents amounted to \$4,647K at June 2023, a decrease of \$7,610K from a year earlier. Operating cash outflows together with \$3,441K spend on acquisitions of plant, equipment and intellectual property rights as part of the planned business growth, were offset primarily by gross proceeds of C\$5.75 million raised from the Bought Deal Offering in November 2022, \$1.55 million of R&D tax incentive received, as well as proceeds from the exercise of warrants and options. Further information regarding the share capital movements is disclosed in the consolidated financial statements for the years ended June 30, 2023 and 2022.

Trade receivables, other receivables and contract assets of \$1,875K as at June 30, 2023, is primarily \$1.65 million for the first instalment payment in respect of the Rio Tinto Joint Development Agreement, \$43K of GST receivables at the end of the quarter, \$166K of trade receivables from sales of THERMAL-XR<sup>®</sup> and G<sup>®</sup> LUBRICANT and \$15K in contract assets recognised.

Inventories increased by \$11K in FY23 to \$361K as at June 30, 2023, mainly due to a reduction in THERMAL-XR<sup>®</sup> stock from increased sales activity being more than offset by increases in graphene powder production.

Other current assets of \$392K is largely \$383K of prepayments, primarily \$264K for insurance, \$46K for leased premises costs including related outgoings, \$42K prepaid equipment servicing costs, \$16K filing fees, \$6K for upcoming marketing conference costs and \$5K for IT expenses costs.

Trade and other payables relate to expenses in the ordinary course of business, including accounts payable, wages payable, PAYG withholding tax payable, superannuation payable, and other accrued expenses. The balance of \$2,821K at June 30, 2023 remains higher than June 30, 2022, mainly due to \$1,125K for deferred income recognised in respect of the Rio Tinto Joint Development income of \$6 million being recognised straight-line over the two year agreement term, \$500K being the remaining consideration yet to be issued for the OzKem Transaction, \$216K higher accruals recorded in respect of R&D project costs and consultancy fees, \$126K contract liabilities in respect of customer contracts with performance obligations pending completion, as well as \$81K higher trade payables .

The financial liability relates to certain share purchase warrants issued with an exercise price denominated in Canadian dollars (as described in detail in a previous section).

### Liquidity and capital resources

GMG has generated limited revenue to date. Cash expenses mainly relate to R&D activities and other operational expenses. Capital raised has been mainly used to fund the development of the Company's proprietary graphene powder production technology, graphene enhanced products and solutions, and plant and equipment and expenses for developing, testing, manufacturing and marketing these products. Development of G+AI Battery technology, production and commercialisation planning has been an increasing focus area for GMG's employees and intended use of current cash resources.

Timing for commercialisation of G+AI Batteries will depend on the further successful development of a commercial G+AI pouch prototype including the process technology required to produce the necessary commercial scale grade graphene powder. GMG continues to work on various scientific and engineering methods to optimise capacity, energy and power density, other standard battery performance criteria and overall design of pouch cell products. With this progress and current plans the company aims to progress from the current pouch cell viability prototype to early pouch cell commercial prototype stages and subsequent stages of cell development(s).

Revenue in the near term is targeted to be generated from TXR. Growth in customer demand for this and other product offerings, and timing for commercialisation of G+AI Batteries, will influence the future funding requirements for GMG. A large part of the strategy involves identifying and recruiting distribution channel partners and providing them the marketing, product and technical support necessary to grow revenues in their regions. Since the recent Australian Government approval for GMG to produce and sell THERMAL-XR<sup>®</sup> at scale, the Company has driven sales activities and is in the process of bolstering related production capacity.

In FY23, the Company incurred a loss of \$9,323K after income tax and net cash outflows from operating activities of \$10,553K. As at June 30, 2023, the Company had net current assets of \$3,825K (June 30, 2022: \$8,903K).

The ability of the Company to continue as a going concern is principally dependent upon current cash funding held and the ability to raise additional capital, attract further partners or secure other forms



of financing, as and when necessary to meet the levels of expenditure required for the Company. This is required to continue its ongoing development and commercialisation of energy saving and energy storage solutions and to meet the Company's working capital requirements.

These conditions continue to give rise to material uncertainty which may cast significant doubt over the Company's ability to continue as a going concern.

Whilst acknowledging these uncertainties, the Directors have concluded that the going concern basis of preparation of the MD&A is appropriate considering the following circumstances:

- As at June 30, 2023, the Company had cash on hand of \$4,648K, which is anticipated to be sufficient to meet the ongoing corporate costs and expected project expenditure in the short term;
- As at the date of this report there are 4,246,233 options and 5,496,951 warrants on issue with exercise prices ranging from AUD\$0.36 to AUD\$3.86<sup>1</sup>. If exercised these could raise up to \$20,374,816 in additional capital. Of these, 4,146,233 options and no warrants are considered "in the money", amounting to potential proceeds of \$2,077,681.
- On May 17, 2023, GMG and Rio Tinto signed a binding Joint Development Agreement ("JDA") , where subject to the terms and conditions of the agreement, Rio Tinto will contribute technical and operational performance criteria and up to A\$6 million, in exchange for preferential access rights (a first payment of \$1.65million (GST Inclusive) has been made post FY23);
- The Company continues to closely monitor expenditure, and the Board is confident that it will be able to manage its cash resources appropriately;
- The Company continues to engage with potential energy saving products customers with the aim to increase sales; and
- To the extent required, the Company has capacity under the TSXV Listing Rules to raise further funds through the issue or placement of securities and currently has a Base Shelf Prospectus readily available on SEDAR for this purpose. As an example in August 2023 C\$3.45m (gross) was raised via an overnight marketed offering.

Should the Company be unable to continue as a going concern, it may be required to realise its assets and extinguish its liabilities other than in the ordinary course of business, and at amounts that differ from those stated in the MD&A. This MD&A does not include any adjustments related to the recoverability and classification of recorded asset amounts or classification of liabilities and appropriate disclosures that may be necessary should the Company be unable to continue as a going concern.

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<sup>1</sup> Assuming a C\$/A\$ exchange rate of 1.15.

## Financial instruments and risk management

Financial assets and financial liabilities are recognised in the balance sheet when the Company becomes party to the contractual provisions of the financial instrument. GMG's financial instruments are its cash and cash equivalents, trade and other receivables, trade and other payables. The Company is exposed to a variety of financial risks, which result from its financing, operating and investing activities. The objective of financial risk management is to contain, where appropriate, exposures in these financial risks to limit any negative impact on the Company's financial performance and position.

The risks arising from the Company's financial instruments are mainly credit risk and foreign currency risk. The risk management policies employed by the Company to manage these risks are discussed below:

### *Credit risk*

Credit risk arises when a failure by counterparties to discharge their obligations could reduce the amount of future cash inflows from financial assets on hand at the balance sheet date. The maximum exposure to credit risk at balance date in relation to each class of recognised financial assets is the gross carrying amount of those assets.

As the company expands and increases sales, this will become a larger consideration. Management closely monitors, the activities of its counterparties and potential counterparties.

### *Liquidity risk*

Liquidity risk is the risk that arises when the maturity of assets and the maturity of liabilities do not match. Some financial assets may not be able to be monetised in a timely manner. Based on current cash resources, the companies outstanding warrants and options, and the recently completed capital raising, Management considers liquidity risk to be low for the 2023 calendar year. While the company does not have any credit facilities from banks, GMG ensures it maintains enough cash, to fulfil its near-term liabilities.

### *Currency risk*

Currency risk is the risk that the value of financial instruments will fluctuate due to changes in foreign exchange rates. Currency risk arises when future commercial transactions and recognized assets and liabilities are denominated in a currency that is not the Company's functional currency. The Company is exposed to foreign exchange risk, however, at present, this risk is relatively low as revenue is limited and most expenses are denominated in Australian dollars. However, in the past, the Company has sourced funding from investors and will increasingly source capital equipment from overseas. Because of the short-term nature of these foreign currency exposures to date and low level of associated risk, the Company has not considered it necessary to enter into any currency hedging transactions. More recently the Company has become exposed to currency risk relating to the financial liability required by IFRS to be recognised in relation to certain warrants with exercise prices denominated in Canadian dollars. As there is no cash obligation associated with this liability, the Company considers the associated currency risk to be low.

## Off-balance sheet arrangements

As of the date of this MD&A, the Company did not have any off-balance sheet arrangements, except for the non-cancellable operating leases for the Sumner warehouse and portable office units. The Company has elected not to recognise right-of-use assets and lease liabilities for leases of low-value assets, as well as short-term leases, including for leased premises and portable office units, and recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

The Company recognises a contingent liability as at June 30, 2023, of approximately C\$102,195 relating to the repatriation of cash acquired in the Cuspis transaction at the time of listing, prior to the dissolution of Cuspis Capital Ltd on August 12, 2021. The contingent liability relates to a potential withholding tax obligation in Canada at the rate of 5% of the amount of cash distributed. The transaction is being treated as a return of capital for Australian tax purposes. At the date of this report, GMG is consulting with the Canadian tax authorities in relation to this amount.

## Outstanding shares

As at the date of this report, the Company has:

- 84,446,866 ordinary shares issued and outstanding;
- 4,246,233 options outstanding with expiry dates ranging between March 12, 2024 and March 10, 2028, with exercise prices between A\$0.36 and A\$2.18. If all the options were exercised, 4,246,233 shares would be issued for proceeds of A\$2,296,151. Of these options 4,146,233 are in the money and if exercised proceeds would be A\$2077,682<sup>2</sup>;
- 5,496,951 warrants outstanding with expiry dates ranging between September 2, 2024 and November 16, 2028, with exercise prices between C\$2.05 and C\$3.86. If all the warrants were exercised, 5,496,951 shares would be issued for proceeds of A\$18,078,665. No Warrants are "in the money"; and
- 779,205 restricted share units outstanding with a nil exercise price and expiry dates ranging between October 20, 2026 and July 13, 2028.

## RELATED PARTY TRANSACTIONS

For a detailed description of all related party transactions, please refer to the Note 27 "Related parties" in the consolidated financial statements for the years ended June 30, 2023 and 2022.

## RISKS AND UNCERTAINTIES

The Company's business is subject to numerous risks and uncertainties, including those described elsewhere in this MD&A, as well as general economic and market risks. These risk factors could materially affect the Company's future operating results and could cause actual events to differ materially from those described in forward-looking information relating to the Company. A detailed

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<sup>1</sup> Assuming a C\$/A\$ exchange rate of 1.15.

description of risks and uncertainties is not incorporated herein. For a detailed description of risks and uncertainties, please refer to the Prospectus available on the Company's SEDAR profile.

## CRITICAL ACCOUNTING JUDGEMENTS AND ESTIMATES

The key reported numbers requiring the use of estimates and critical judgments that may potentially have a significant impact on the Company's earnings and financial position are as follows:

### *The useful life of property and equipment and the recognition and amortization of intangible assets*

Intangible assets and property and equipment are amortized or depreciated over their useful lives. Useful lives are based on Management's estimates of the period that the assets will generate revenue, which are periodically reviewed for continued appropriateness. Changes to estimates can result in significant variations in the amounts charged to the statement of comprehensive income in specific periods.

Intangible assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount.

### *Revenue Recognition from sales and services*

Revenue from contracts with customers is recognised by reference to each distinct performance obligation in the contract with the customer. Revenue from contracts with customers is measured at its transaction price, being the amount of consideration which the Group expects to be entitled in exchange for transferring promised goods or services to a customer, net of goods and service tax, returns, rebates and discounts. Transaction price is allocated to each performance obligation on the basis of the relative standalone selling prices of each distinct good or services promised in the contract. Depending on the substance of the contract, revenue is recognised when the performance obligation is satisfied, which may be at a point in time or over time.

Changes to estimates in relation to recognition methodology can result in variation in the amounts of, and timing of revenue recognised from these contracts.

### *The Basis of measurement of Financial Liabilities*

The Company has issued certain share purchase warrants which have a fixed exercise price in Canadian dollars. As the functional currency of the Company is the Australian dollar, these warrants are considered a derivative as a variable amount of cash in the Company's functional currency will be received on exercise. The share purchase warrants were not issued for goods or services rendered. Accordingly, these warrants are classified and accounted for as a derivative financial liability at fair value through profit or loss. The fair value of the warrants is determined using the quoted market trading data for the Company's traded warrants, and the Black-Scholes option pricing model for non-traded warrants.

Any changes to the valuation methodology and variables underlying this methodology can result in significant variations in the amounts charged to the statement of comprehensive income in specific periods.

#### *The recognition and measurement of provisions*

Provisions are recognised when the Group has a present (legal or constructive) obligation as a result of a past event, it is probable the Group will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation.

Any changes in the underlying obligation or our estimate of the costs associated with this obligation can result in unexpected variations in the amounts charged to the statement of comprehensive income in specific periods.

### FUTURE CHANGES IN ACCOUNTING POLICIES

In FY23 the Company applied for the first-time certain standards and amendments, which are effective for annual periods beginning on or after 1 January 2022. The Group has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

- *References to Conceptual Framework* (Amendments to IFRS 3);
- *Onerous Contracts – Costs of Fulfilling a Contract* (Amendments to IAS 37);
- *Property, Plant and Equipment: Proceeds before Intended Use* (Amendments to IAS 16); and
- *Annual Improvements to IFRS Standards 2018-2020* (Amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41).

These amendments had no material impact to the Company during the reporting period.

There are a number of standards, amendments to standards, and interpretations which have been issued by the IASB that are effective in future accounting periods that the group has decided not to adopt early.

- *Amendments to IAS 1 Classification of Liabilities as Current or Non-current*

The amendments were originally effective for annual reporting periods beginning on or after 1 January 2022. In May 2020, the effective date was deferred to annual reporting periods beginning on or after 1 January 2023 and must be applied retrospectively. The Group is assessing the impact the amendments will have on current and future practice.

- *Amendments to IAS 8 Definition of Accounting Estimates*

The amendments are effective for annual reporting periods beginning on or after 1 January 2023, with earlier application permitted as long as this fact is disclosed. The Group is assessing the impact the amendments will have on current and future practice.



- Amendments to IAS 1 and IFRS Practice Statement 2 *Disclosure of Accounting Policies*

The amendments are effective for annual reporting periods beginning on or after 1 January 2023 with earlier application permitted. Since the amendments to the Practice Statement 2 provide non-mandatory guidance on the application of the definition of material to accounting policy information, an effective date for these amendments is not necessary. The Group is assessing the impact the amendments will have on the Group's accounting policy disclosures.

- Amendments to IAS 12 *Deferred Tax related Assets and Liabilities arising from a Single Transaction*

The amendments are effective for annual reporting periods beginning on or after 1 January 2023. When these amendments are first adopted for the year ended June 30, 2024, they apply prospectively to all transactions that occur on or after the beginning of the earliest comparative period, being July 1, 2022. The cumulative effect of initially applying these amendments will be recognised in opening balances of retained earnings on July 1, 2022. The Group is assessing the impact the amendments will have on current and future practice.

#### *Other standards*

The following amendments are effective for the period beginning 1 January 2024 and are not expected to have a material impact on the Group's consolidated financial statements:

- *IFRS 16 Leases* (Amendment – Liability in a Sale and Leaseback); and
- *IAS 1 Presentation of Financial Statements* (Amendment – Non-current Liabilities with Covenants).