



ALEXIUM

ALEXIUM INTERNATIONAL GROUP LIMITED
FY2023 Full Year Results
25 August 2023

ABN 91 064 820 408

PRESENTED IN US DOLLARS



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COMPANY OVERVIEW





Company Overview

"Alexium's value to customers is technology enabling them to create a unique user experience that drives higher sales volumes at improved margins..."

- A performance materials company leveraging proprietary technical innovations to deliver thermal regulation, dehumidification and flame-retardant solutions.
- With 25 global patents and patent applications in the thermal regulation and flame-retardant fields, Alexium delivers value-add innovations for textile and foam applications in bedding, first responders, military and other markets.
- A pioneer in phase change materials, specialising in innovative composites that offer adaptive thermal management through continuous heat dissipation and dehumidification.
- Alexium manufactures its products in the US with global distribution to Asia, Europe, and North America.

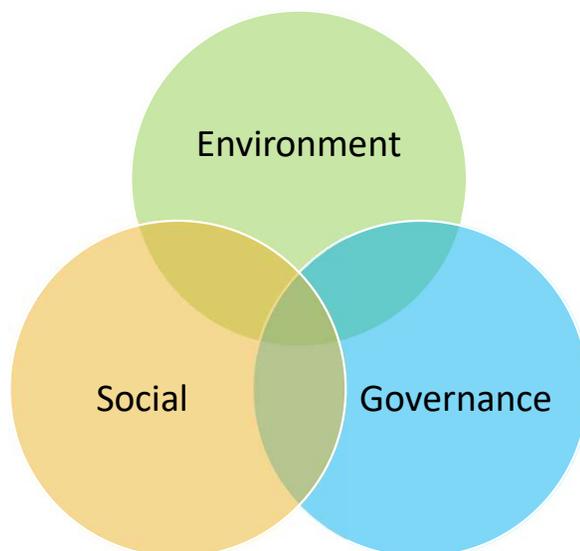


Alexium's ESG Commitment



By EOY FY2024, Alexium will establish baselines, metrics and KPIs for ESG performance:

- ❖ **Environment:** waste reduction, resource conservation, and environmentally friendly products
- ❖ **Social:** qualification-based gender & race pay equality, community investment
- ❖ **Governance:** transparency into corporate integrity, compliance auditing



SUSTAINABLE PRODUCT FOCUS:

Biocool® | Alexium's proprietary biobased cooling technology for textile & foam applications

- ✓ Biobased, sustainable raw materials
- ✓ 94% biobased content (highest in market)
- ✓ Registered with the USDA BioPreferred program
- ✓ Certified under the Ecocert COSMOS program

PCM BioPreferred Sales Mix Goal:

FY23 Goal

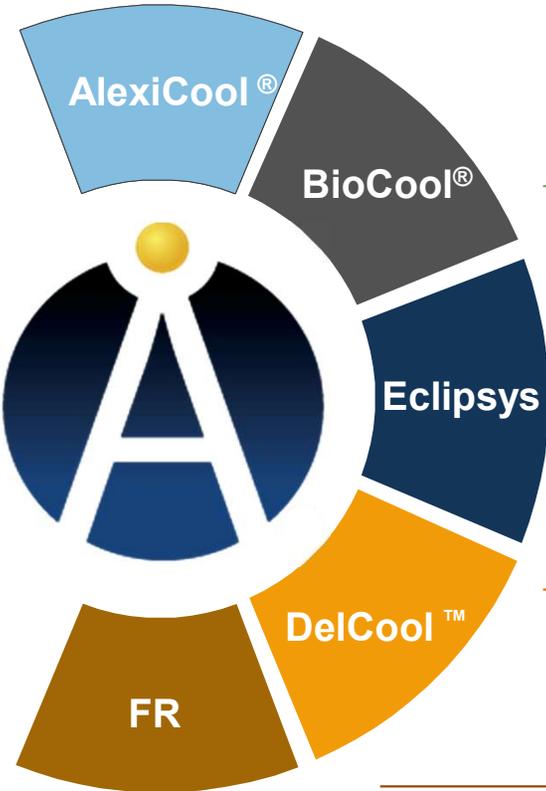
70%

FY23 Actual

65%

Environmental, Social and Governance (ESG) Statement: Alexium is committed to providing innovative, sustainable, and environmentally friendly solutions to our customers and end consumers. We take responsibility for our impact on the environment and human welfare seriously and are dedicated to exceeding industry standards for safety and environmental sustainability. The board recognises the importance of formally integrating Environmental, Social and Governance (ESG) principles into our daily operations and as such, is committed to implementing a transparent, data driven program to help identify opportunities to align our business activities with these values.

Alexium Core Technologies



AlexiCool®
PCM-based cooling products for textile & foam applications



BioCool®
*Proprietary **bio-based** cooling products for textile & foam applications*



Eclipsys®
Perpetual cooling technology for textile & foam-based products



DelCool™
Dehumidification technology for thermal comfort in textile & foam-based products



Alexiflam® & Alexiguard™
Flame retardant treatment for textiles rich in synthetic and natural fibers

FY23 Highlights



New Strategy:

- Billy Blackburn, new CEO commenced September 2022.
- Company restructure refocused efforts from product development to existing technologies commercialisation.
- New strategy implemented focused on near-term results from bedding then diversify revenue and customer concentration through adjacent markets.

Funding Secured

- Renegotiated convertible note with Colinton Capital Partners with additional \$1million.
- Alterna credit facility closed in FY22 which ensured a healthy operating cash position for the business.

Core Focus: Near-term Revenue

- Increased market penetration of environmentally sustainable BioCool® PCM in the bedding market, growing sales.
- Commercialised the new DelCool™ heat index reduction technology, with a new pillow placement in retail stores in Q4 FY23.
- New contract strategy with significant progress made establishing terms with customers.
- Executed MSA with a large global bedding brand for a large percentage of the company's existing PCM-based product sales.
- Improvements to PCM chemistries created new opportunities for foam applications: new customers with sales starting in early FY24.
- Robust business pipeline with qualified opportunities.

Adjacent Focus: Product and Market Diversification

- Improvements to the Eclipsys® technology enables easier customer adoption in body armour.
- DelCool™ production improvements underway, opening new opportunities for higher volume placements due to its exceptional cost benefit ratio for customers.
- Secured FR NyCo supply chain partners (current military suppliers) to prepare for full production scale.
- Alexium quoted three FR NyCo fabric options for the US Marine Corps.
- Development and testing efforts continue with the US Army.

Market development – FY23 H2 Highlights



1

Core Focus:
Grow & Diversify Bedding Market Revenue



2

Adjacent Focus:
Eclipsys® for Tactical Gear



3

Adjacent Focus:
FR NyCo for Military Uniforms

Bedding Focus - Milestones:

- Q4: First commercial revenue from production and sales of the new DelCool™ pillow liner to fill orders for a large US-based department store.
- Q4: Successful BioCool® product qualification completed for two European producers making mattress textiles for a major global brand, which will result in sales outside the U.S in FY24.
- Q4: Final approvals of Alexium's Eclipsys® production in preparation for a large mattress brand launch at the start of 2024.
- Q4: Enhancements to Alexium's PCM opens new opportunities for foam mattress and pillow applications, which resulted in commitments from four new customers with revenue commencing in early FY24.

Tactical Gear Focus – Milestones

- Q3: Four customers actively testing and commencing field trials for ballistic vests
- Q4: New revenue from customer adoption of Eclipsys® in tactical vests from successful testing and trials in Q3.

FR NyCo Focus - Milestones

- Q4: Submitted three FR NyCo fabric options with pricing for the US Marine Corps NEXGEN uniform RFQ.
- Q4: Established a viable supply chain to scale the FR treated NyCo fabric to full-rate production should Alexium be selected.
- Q4: Continued development efforts with the US Army to create a cost-effective FR NyCo to be tested in Q2 FY24.

FY23 & FY24 - Market Development Priorities

Grow and diversify through four key enablers: grow and diversify bedding market revenue, commercialise Eclipsys® for tactical gear, commercialise FR NyCo for military, and continued innovation.

Core Focus Areas (70%) – Bedding Market Revenue:

PCM, DelCool™ & Eclipsys® applications:

- Innerspring Mattress
- Foam Mattress
- Low-cost/Hi-Volume Mattress Applications (“bed in a box”)
- Top of Bed – Pillows and Mattress Toppers

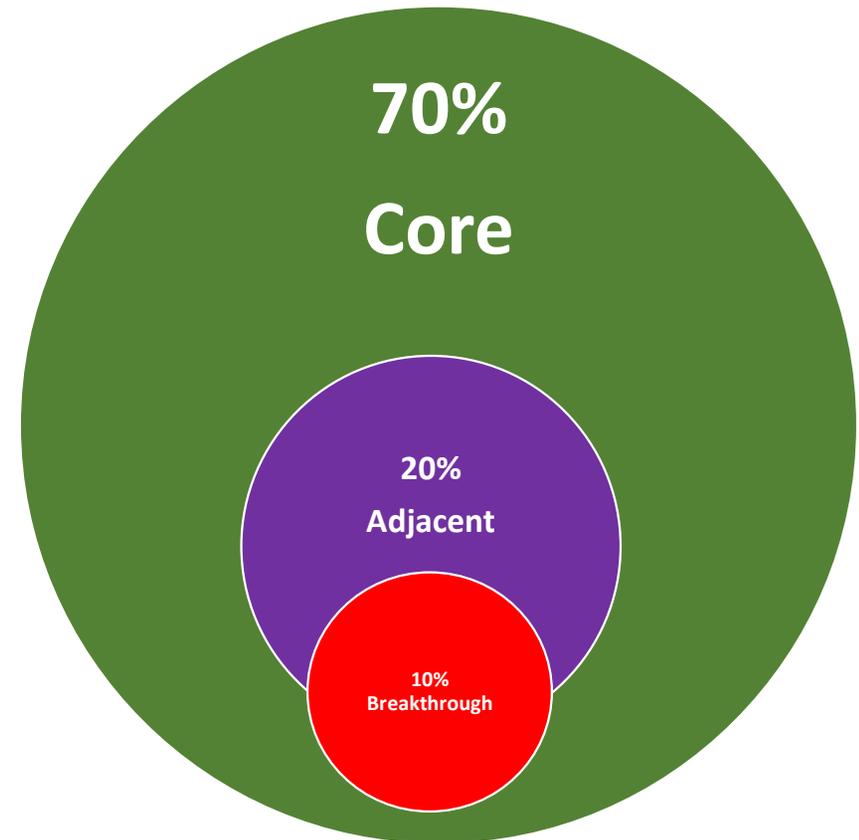
Adjacent Focus Areas (20%) - Military Uniforms & Tactical Gear:

Alexiflam® & Alexiguard™ Applications:

- FR NyCo – US Army
- FR NyCo – US Marine Corp
- Eclipsys® - Body Armour/Tactical Vests

Breakthrough Focus Areas (10%) – Innovation Pipeline

- Eclipsys® for Helmets (military, law enforcement, sports)
- Eclipsys® for Footwear
- Eclipsys® for Electronics
- Eclipsys® and/or PCM for Cold Chain Packaging
- Alexiguard™ sold as a textile softener
- Alexiflam® for workwear and/or PPE



Bedding – Grow and Diversify

alexicool®

biocool™

eclipsys™

DelCool

*WHERE WE ARE
TODAY*

*KEY NEXT STEPS
IN H1 FY24*

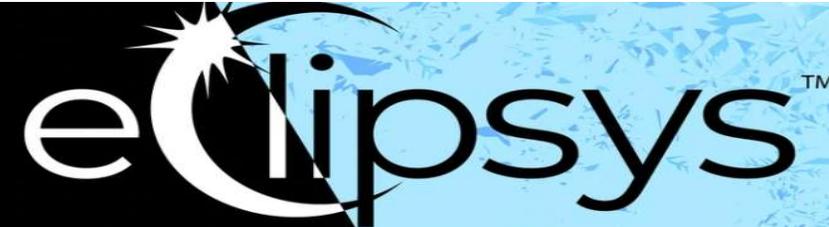
*VALUE TO
ALEXIUM*

- AlexiCool®/BioCool® brands are established premium products, with sales to all US tier one mattress suppliers. Advancements in the chemistry opened new opportunities for foam applications.
- Alexium PCM sales globalised to Asia and Europe.
- DelCool™ launched successfully and now in high-end pillows in a large US department store, which opened interest from other retailers in the big-box store and high-volume e-commerce space.
- DelCool™ + Eclipsys® platform being reviewed for use as a thermal management platform (best in class, all night comfort).
- Eclipsys® and PCM based premium mattress design finalised for retail launch in early 2024, with a Master Services Agreement executed with an industry leading mattress manufacturer.

- Continued revenue growth from PCM in textile applications in mattress & top-of-bed .
- Diversification and revenue growth from new foam bedding applications.
- Expanding the Company's customer base across a wider range of bedding market segments.
- DelCool™ launch paves the way for high volume sales of comfort technology at a lower price point.
- Eclipsys® launch paves the way for high-dollar sales in the premium price mattress segment.
- DelCool™ + Eclipsys® platform opens large opportunities for best-in-class all-night comfort.

- Revenue growth and customer diversification from new foam bedding applications.
- DelCool™ and Eclipsys® sales drive revenue growth and reduce concentration risk from a single product offering.
- Improved product/customer/market mix buffers Alexium sales from the volatility of the bedding market and maintains operating margins.

Eclipsys® for Tactical Gear



WHERE WE ARE TODAY

- Improvements to Eclipsys® technology and manufacturing process led to new opportunities for product adoption.
- Learnings from field tests in FY23 led to customers being able to streamline integration of Eclipsys® in tactical gear (increased % of success).
- Several customers conducting field testing of Eclipsys® in tactical vests.
- New customer commenced Eclipsys® orders in Q4 FY23.

KEY NEXT STEPS IN H1 FY24

- Successful results expected from field trials in late FY23/early FY24 should lead to new customers and increased sales.
- Alexium continues improving sampling, testing and product application protocol to improve customer integration and adoption.
- Successful private sector field tests open new opportunities for Eclipsys® to be specified in formal contract supply requests from the public sector (military & law enforcement).

VALUE TO ALEXIUM

- New revenue streams from new customers.
- Improved profit.
- Greater market penetration & diversification of the customer concentration in bedding.
- Success of Eclipsys® in tactical gear leads the way to applications in the athletic gear market.

FR NyCo for Military Uniforms

alexiguard
& alexiflam[®]

WHERE WE ARE TODAY

- Alexium has created a flame-resistant nylon + cotton fabric treatment utilising a combination of the Alexiguard™ + Alexiflam® chemistries.
- Alexium has delivered production-scale FR NyCo treated fabric that passed initial military test requirements for weight, strength and flame resistance. Samples are currently under review by the US Army and US Marine Corps.
- Alexium has secured a supply chain of established military suppliers to collaborate on the fabric development and testing, and to also be ready to rapidly scale to full manufacturing rates.
- Awaiting feedback from the USMC RFQ submittal.

KEY NEXT STEPS IN H1 FY24

- Deliver treated fabric for cut-and-sew of uniforms for the US Army to utilise in burn testing.
- If successful feedback is received from the USMC RFQ, prepare treated fabric for field tests on Marines.
- Continue manufacturing process design improvements in preparation for full scale production.

VALUE TO ALEXIUM

- New & large revenue streams.
- Diversified market and customer base.
- Improved profitability.
- Long-term contracts to secure revenue and profitability outcomes for the company.



FY24 Forward Focus

The year ahead will be all about the execution of converting development opportunities into recurring revenue streams. With the business pipeline full of qualified growth projects, the company now shifts focus to strengthening its operations and supply chain in preparation for increased sales volumes. Like FY23, FY24 will be a continuation of sales growth in Alexium's core market, bedding. The company will continue its development efforts for commercialising Eclipsys® into adjacent markets, and FR NyCo for military fabrics, but at a lesser rate of resource allocation. This approach assures that the company stays aligned with delivering meaningful results this fiscal year. Alexium has been at a cash positive level for short periods on numerous occasions. The pragmatic goal for FY24 is surpass the breakeven point, then remain cash positive and profitable for years to come. For the company's core focus in bedding, this means continued growth of PCM sales and large volume starts for both Eclipsys® and DelCool™. For the company's secondary focus on adjacent markets, this means ratable sales of Eclipsys® to multiple customers in body armour and commitments for FR NyCo with the military for FY25 and beyond. The company is well positioned to realise its near-term goal of sustainable cash flow positive operations in FY24.

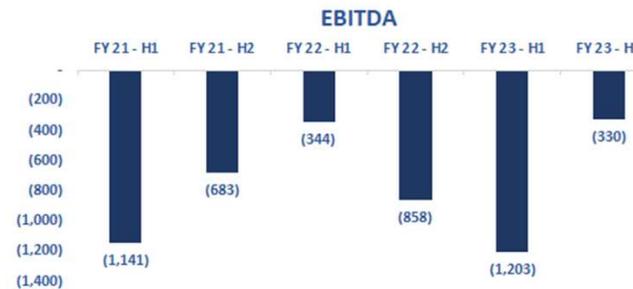
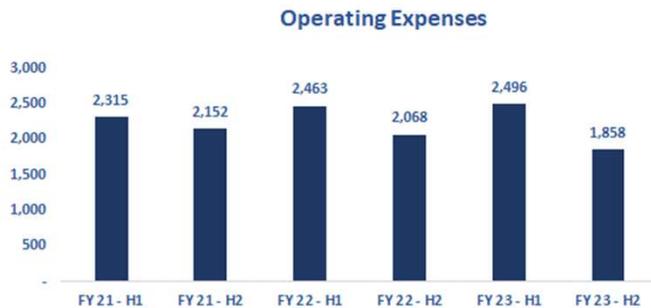
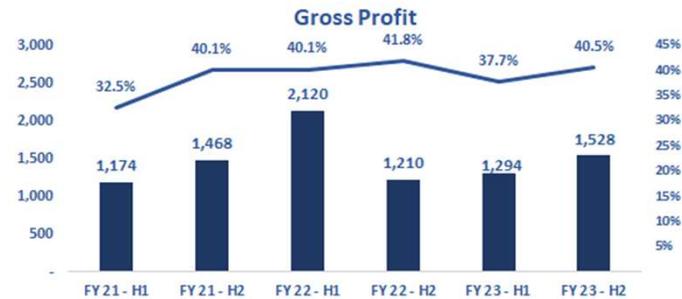
FY2023 OVERVIEW



Financial Snapshot

Revenue continues to recover for the second consecutive half year

- ✓ Full year revenue down 11.8% year over year, with H2 revenue increased by 30.6% versus same period prior year.
- ✓ Gross Profit continues to recover from a recent low in H2 FY22, up \$318K.
- ✓ Gross margin at 39.1% is down 1.6 percentage points from same period last year due to product mix.
- ✓ Operating expenses down 3.9% or \$177K versus prior year.
- ✓ Net cash outflows from operating activities improved by \$0.5m to \$(1.1)m.



All values in USD and thousands unless otherwise noted

Financial Spotlights

Profit and Loss

- ✓ Full year revenue down 11.8% year over year, with H2 revenue 30.6% higher than same period prior year.
- ✓ Operating expenses down 3.9% or \$177K.
- ✓ Debt extinguishment charge of \$577K related to the substantial modification of the existing note.

Going Concern

- ✓ Budget and Cash flow forecast with strong opportunity in the pipeline.
- ✓ Continued market growth with BioCool®, Eclipsys® and DelCool™ patented technologies.
- ✓ Availability on Alterna asset-based line of credit remains strong.
- ✓ The Noteholder continues to be supportive.

Convertible Note

- ✓ Colinton Capital A\$5.15m four-year 6% convertible note was amended, restated and extended at the end of December for a new three-year term.
- ✓ Incremental A\$1.5m capital raised in conjunction with the amend, restate and extend process.

Risks

- ✓ Supply chain continues to strengthen with the building out of alternative materials, suppliers and toll manufacturers.

FINANCIAL RESULTS



Cash Flow Statement



- Operating Activities outflows improved \$0.5m with changes in:
 - ✓ \$(2.3)m – cash receipts on lower sales
 - ✓ \$2.7m - product purchases & manufacturing
 - ✓ \$0.1m – all other costs
- Investment Activities outflows flat
 - CAPEX related to laptop replacement
 - Internal Development costs related to:
 - DelCool™
 - Eclipsys®
- Financing Activities up \$1.0m – cash from replacement note

	FY23 (USD)	FY22 (USD)
Cash flow from operating activities		
Receipts from customers and other income	6,635	8,924
Payments to suppliers and employees	(7,656)	(10,247)
Interest received	13	2
Interest and other costs of finance paid	(129)	(276)
Goods & services tax received	34	24
Net cash flows (used in) operating activities	(1,104)	(1,572)
Cash flows from investing activities		
Purchase of property, plant and equipment	(19)	(52)
Payments for development costs	(368)	(302)
Net cash flows (used in) investing activities	(387)	(355)
Cash flows provided by financing activities		
Proceeds from borrowings	5,771	251
Proceeds on substantial modification of convertible note	1,022	-
Transaction costs related to line of credit	-	(58)
Repayment of borrowings	(5,797)	(115)
Share issuance transaction costs	(1)	(4)
Net cash flows from/(used in) financing activities	996	74
Net increase / (decrease) in cash and cash equivalents	(494)	(1,852)
Cash and cash equivalents at beginning of year	1,027	2,933
Effect of exchange rate changes on cash	(19)	(53)
Cash and cash equivalents at end of year	513	1,027

Profit & Loss Statement



- While revenue has declined \$1.0m year-on-year, the business has experienced recent momentum with revenue growing for the second consecutive half year
- Gross Profit down \$0.5m with decreased revenue and lower Gross Margin due to product mix.
- Operating expenses resulted in a decrease of \$0.2m with changes in headcount and normal operating expenditures.
- Amortisation expense down \$1.4m mainly due to prior year containing an intangible asset impairment.
- Interest expense is up with the rise in interest rates on the line of credit and new rates with restated convertible note.
- Loss on extinguishment of debt due to the material change in the restated convertible note.

	FY23 (USD)	FY22 (USD)	Change	% Change
Sales Revenue	7,211	8,175	(964)	(11.8%)
Cost of Goods Sold	(4,389)	(4,845)	456	(9.4%)
Gross Profit	2,822	3,330	(508)	(15.3%)
Gross Margin	39.1%	40.7%	(1.6%)	
Operating expenses	(4,355)	(4,531)	177	(3.9%)
Operating EBITDA ⁽¹⁾	(1,533)	(1,202)	(331)	(27.6%)
Depreciation & Amortisation	(664)	(2,073)	1,409	(68.0%)
EBIT	(2,197)	(3,274)	1,077	(32.9%)
Interest & Amortisation of Convertible Note	(983)	(776)	(207)	26.7%
(Loss) on Debt Extinguishment	(576)	-	(576)	
Gain on Change in FV of Derivative	794	688	106	15.4%
Finance income	13	2	10	476.2%
Finance Costs Total	(753)	(86)	(667)	777.5%
Net Loss	(2,950)	(3,360)	410	12.2%

(1) Operating EBITDA is a non-GAAP financial measure see appendix for reconciliation of Operating EBITDA to statutory net profit/(loss) after tax.

Balance Sheet

- Working Capital
 - Overall net working capital decreased by \$0.5m. Trade receivables were higher on increased sales, offset by an inventory decrease due to utilisation, forecasting, and planning.
- Non-Current Assets
 - Decrease of \$0.2m with all categories in line with prior year after accumulated depreciation and amortisation.
- Current Liabilities
 - Trade payables and Line of Credit in line with prior year.
- Non-Current Liabilities
 - Colinton Capital A\$7.0m three-year 10% convertible note renewal
 - Increased derivative liability with replacement convertible note.
 - Lease liability related to the right-us-use for the Greer, SC location.

	30-Jun-23 (USD)	30-Jun-22 (USD)
Current Assets		
Cash and cash equivalents	513	1,027
Trade and other receivables	1,047	579
Inventories	825	1,599
Other current assets	87	91
Total Current Assets	2,472	3,296
Non-Current Assets		
Other financial assets	18	17
Property, plant and equipment	731	968
Intangible assets	1,695	1,569
Right of use asset	465	575
Total Non-Current Assets	2,909	3,128
Total Assets	5,381	6,424
Current Liabilities		
Trade and other payables	990	816
Lease liabilities	136	118
Line of Credit	161	179
Total Current Liabilities	1,288	1,113
Non-Current Liabilities		
Borrowings	3,787	2,815
Derivative liability	688	182
Lease liabilities	601	737
Total Non-Current Liabilities	5,076	3,735
Total Liabilities	6,364	4,848
Net Assets	(983)	1,576
Equity		
Contributed equity	66,611	66,524
Reserves	(890)	(1,196)
Accumulated losses	(66,703)	(63,752)
Total Equity	(983)	1,576



APPENDIX



Non-GAAP Financial Measure Reconciliation

Reconciliation of Operating EBITDA (non-GAAP financial measure) to statutory Net Profit/(Loss)

The consolidated financial statements of the Group are general purpose financial statements which have been prepared in accordance with the Australian Accounting Standards Board (AASB) and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards Board (IASB).

This presentation includes a non-GAAP financial measure which is not prepared in accordance with IFRS being:

Operating EBITDA: calculated by adding back (or deducting) finance expense/(income), depreciation, amortisation, gain/(loss) in FV of derivative liability, and loss on debt extinguishment to net profit/(loss) after tax.

The Group uses this measure internally and believes this non-GAAP financial measure provides useful information to readers to assist in position or returns, but that they should not be viewed in isolation, nor considered as a substitute for measures reported in accordance with IFRS. Non-GAAP financial measures may not be comparable to similarly titled amounts reported by other companies.

	FY23 (USD)	FY22 (USD)
Net Loss for the period	(2,950)	(3,360)
Add		
(+) Depreciation	363	370
(+) Amortization	301	1,703
(+) Interest expense	983	776
(-) (Gain) in FV of derivative liability	(794)	(688)
(+) Loss on debt extinguishment	576	-
	1,430	2,161
Less		
(-) Interest Income	(13)	(2)
	(13)	(2)
Operating EBITDA	(1,533)	(1,202)