24 August 2023

Appendix 4E – Preliminary final report

1. **Company details:**
   - Name of entity – Calix Limited
   - ACN – 117 372 540
   - Reporting period – For the year ended 30 June 2023

2. **Results for announcement to the market:**

				$ 000's
Total revenue from ordinary activities	up	1%	to	18,600
Total other income from ordinary activities	up	374%	to	11,007
Loss before depreciation, amortisation, impairment, foreign exchange losses, share based payments, and income tax	up	19%	to	(14,478)
Loss for the year attributable to the owners of Calix Limited	up	42%	to	(23,415)

3. **Net tangible assets:**

	Current reporting period	Previous reporting period
Net tangible assets per ordinary security	$0.50	$0.21

4. **Dividends:**

No dividends have been provided for or paid during the current or previous periods.

5. **Control gained over entities:**

Calix Limited did not gain control over any entities during the financial year.

6. **Audit qualification or review:**

The financial statements have been audited and an unqualified opinion has been issued.

This announcement has been authorised for release to the ASX by:

Phil Hodgson
Managing Director and CEO
Calix Limited
9-11 Bridge Street
Pymble NSW 2073
Ph +61 2 8199 7400

About Calix

Calix Limited (ASX: CXL) is an environmental technology company solving global challenges in industrial decarbonisation and sustainability, including CO_2 mitigation, sustainable processing, advanced batteries, biotechnology and water treatment.

Calix's patented core technology platform delivers efficient indirect heating of raw materials to enable electrification of industries, efficient capture of unavoidable emissions, and green industrial processing solutions. Its flash heating approach can also produce unique nanoporous materials with enhanced chemical and/or bioactivity.

Leveraging its core technology platform and a global network of research and development collaborations, Calix is urgently developing multiple environmental businesses that deliver positive global impact. Because there's only one Earth, and it's already ours.

Mars is for quitters.

For more information:

Phil Hodgson
Managing Director and CEO
phodgson@calix.com.au
+61 2 8199 7400

Darren Charles
CFO and Company Secretary
dcharles@calix.com.au
+61 2 8199 7400

Investor enquiries
investorrelations@calix.global

Media enquiries
media@calix.global

Website: https://www.calix.global/
LinkedIn: https://www.linkedin.com/company/calix-limited/
Twitter: @CalixLimited
YouTube: CalixLimited

calix

Calix Limited Annual Report

2023

Acknowledgement of country

Calix acknowledges the First Nations people and traditional custodians of the lands upon which we live and work. We acknowledge their rich cultures and their continuing connection to land, waters and community. We pay respect to the culture and people, their Elders and leaders, past, present and emerging.

Social inclusion statement

Calix embraces diversity and inclusion. It is one of our core values. We promote an inclusive and safe space for all and proudly welcome and support people of any race, ability, gender and identity.

Sustainability statement

At Calix, sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. It is deeply embedded in our purpose: Mars is for quitters.

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ABOUT CALIX

Calix is an environmental technology company that is developing a unique platform technology to solve global challenges in industrial decarbonisation and sustainability.

We are building multiple businesses to deliver positive global impact in CO2 mitigation, sustainable processing, advanced batteries, biotechnology and water treatment.

Because there's only one Earth, and it's already ours.

MARS IS FOR QUITTERS.

A new way to “heat stuff up”

Calix’s patented core platform technology is designed to deliver efficient indirect heating of raw materials to enable:

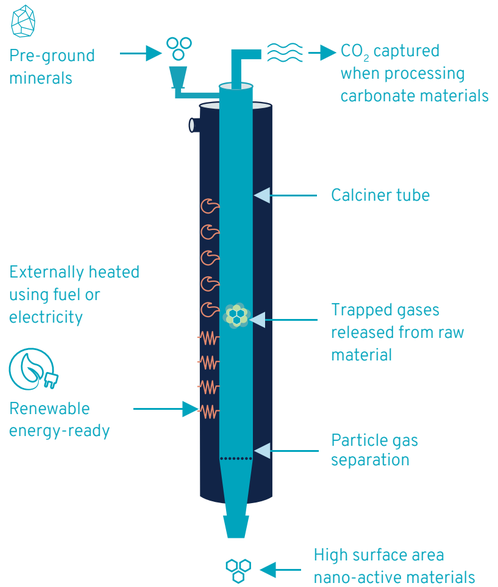
- Electrification of industries;
- Efficient capture of unavoidable emissions; and
- Sustainable industrial processing solutions.

Its flash heating approach can also produce unique nanoporous materials with enhanced chemical and/or bioactivity.

28 patent families covering core technology & applications.

>A$120m invested to develop core technology to date.

Calix’s core platform technology



RENEWABLE ENERGY-READY

Compatible with electricity and alternative fuels to provide viable, flexible and economical pathways to sustainable processing.

CO_2 CAPTURE

Unavoidable process CO2emissions from cement and lime production are separated for use or storage.

HIGHLY-ACTIVE MATERIALS

Produces high surface area nanoporous materials with enhanced chemical and/or bioactivity.

Innovating for Earth

Every application of Calix's core platform technology is designed to: address a specific global environmental challenge consistent with our purpose, values and company ethos; present opportunities for shared value creation and economic growth; and deliver sustainable competitive advantage.

Licensing, joint ventures and spin-out strategies are designed to commercialise each new application at speed, and seize every opportunity to urgently address some of humanity's greatest global sustainability challenges.

MARS IS FOR QUITTERS

2005
FOUNDED

ASX2018

UNGC signatory
SINCE 2020

120+ employees

A$120m technology investment

9 operational SITES

28 PATENT families

ACTIVE IN 7 0 5 countries continents

Solving global challenges:

- Electrification of industrial processing
- Capture of unavoidable emissions
- Sustainable environmental solutions

SOLVING GLOBAL CHALLENGES

The commitment of Calix's purpose-driven team, our patented breakthrough technology, and a global network of research and development collaborations are propelling our mission to urgently address some of humanity's greatest global sustainability challenges.

Leilac

Global Challenge:

Decarbonising cement

Cement is the key ingredient in concrete, the most consumed substance on Earth, after water[1]. It provides the foundations of modern life. Its production is also inherently carbon intensive, accounting for ~8% of global CO_2 emissions[2].

Leilac's technology aims to deliver a low-cost capture solution for emissions released unavoidably in the production of cement and to be compatible with electricity and clean alternative fuels.

Affordable and scalable decarbonisation solutions for cement can accelerate a just transition to net zero that balances social, economic and environmental sustainability.

[1]Concrete Future – GCCA 2050 Cement and Concrete Industry Roadmap for Net Zero Concrete.
[2]Trends in global CO_2 emissions; 2016 Report, The Hague: PBL Netherlands Environmental Assessment Agency.

SUSTAINABLE PROCESSING

Global Challenge:

Decarbonising iron & steel

Iron and steel are essential materials for economic development and prosperity. Carbon intensive conventional production methods, however, mean iron and steel are responsible for ~7% of global CO_2 emissions[3].

Calix's Zero Emissions Steel TechnologY (ZESTY) is renewably powered and is targeting the most efficient use of green hydrogen as a reducing agent in the production of green iron and steel.

Decarbonising one of the world's largest sources of industrial emissions could add value to local iron ore exports, future-proof local iron and steel production and underpin sustainable global development.

[3]Climate change and the production of iron and steel. World Steel Association. 2021

SUSTAINABLE PROCESSING

Global Challenge:

Sustainable critical minerals

With increasing demand for the critical minerals needed in a decarbonising global economy, mineral processing must solve sustainability challenges across the supply chain.

Calix's at-mine electric mineral processing technology is being designed to be renewably powered, enhance ore recovery, and enable near zero-waste products.

Sustainable processing solutions, such as the production of low-carbon lithium, have the potential to deliver a significant reduction in the cost and environmental impact of critical minerals, adding value to mineral exports and enabling a more sustainable transition towards net zero.

ADVANCED BATTERIES

Global Challenge:

Making better batteries

The ongoing, rapid growth of the global battery market makes finding more economical and sustainable production methods increasingly important to meeting the Sustainable Development Goals.

Calix is pioneering a renewably powered, energy efficient and low-cost chemistry agnostic platform technology designed to produce sustainable high-performance nanostructured battery materials.

Better, more sustainable batteries are an essential enabling technology for our clean energy future, helping to decarbonise transport and stabilise renewably powered energy grids.

WATER

Global Challenge:

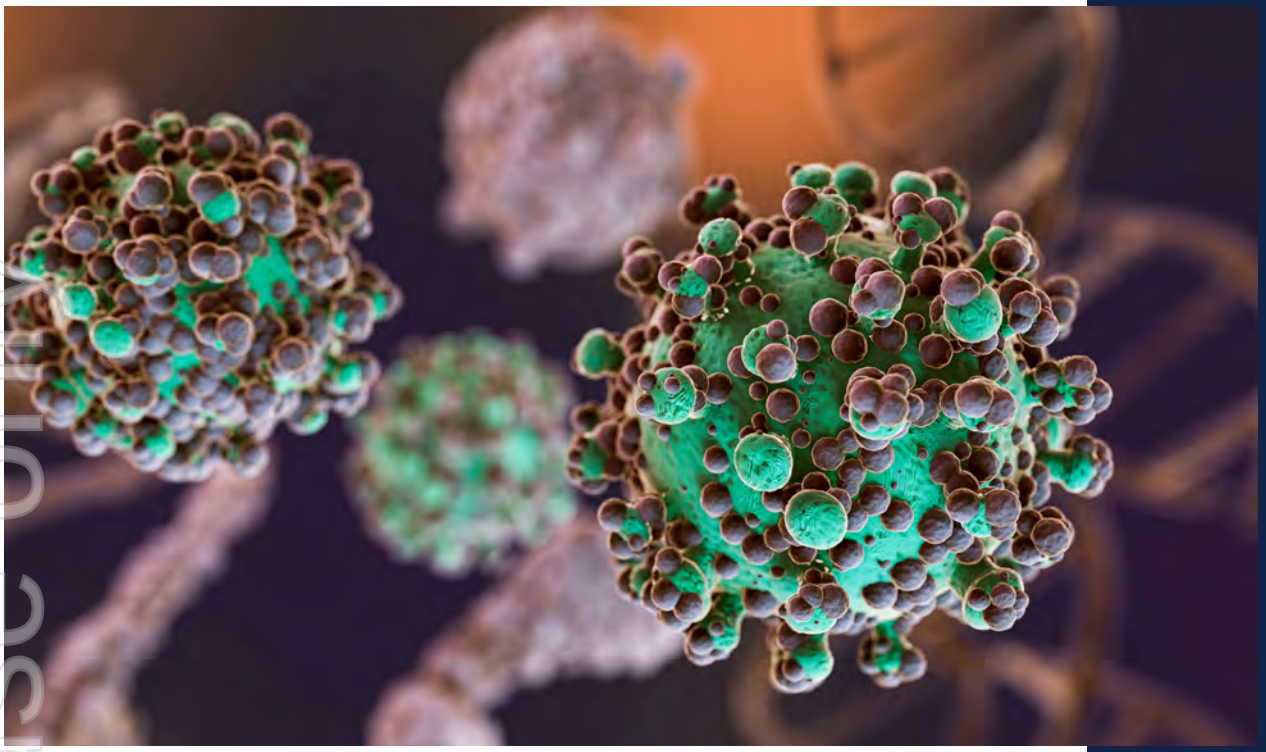
Sustainable water treatment

Clean water and sanitation are central to achieving the Sustainable Development Goals. Currently, 80% of wastewater flows back into the ecosystem without being treated or reused, while existing water treatment products, such as caustic soda, can have significant environmental impacts[4].

Calix's magnesium-based products are designed to minimise the release of hazardous chemicals and materials into our water systems, to provide a safe and sustainable solution for water and wastewater treatment.

Effective water and wastewater management prevents pathogens, nutrients and other types of pollution from entering the environment, protecting freshwater systems, oceans and human health.

[4]http://www.unwater.org/water-facts/quality-and-wastewater



BIOTECH

Global Challenge:

Antimicrobial resistance

Following many years of antibiotic overuse, antimicrobial resistance is now a rapidly emerging global crisis. Reducing reliance on conventional pesticides, biocides and antibiotics is urgently needed.

Calix's unique non-toxic bioactive materials show promising potential to suppress pathogenic microorganisms, insect pests, and marine bio-foulants through a generally non-lethal mode of action with very low resistance development potential.

Novel bioactive materials could provide sustainable replacements to polluting or damaging products in agriculture and marine coatings and help address the rise of antimicrobial resistance.

SUSTAINABILITY IS IN OUR DNA

At Calix, sustainability is not simply a box-checking exercise; it is deeply embedded in our DNA. It is the fundamental reason we exist: to solve global challenges. Sustainability steers our decision-making, shapes our strategies and inspires our innovation.

This year, we proudly reaffirm our dedication to sustainability by recommitting to the United Nations Global Compact (UNGC), the world's largest sustainability initiative, of which we have been a participant since 2020.

We are guided by the Ten Principles of the UNGC to align our operations with global sustainability targets. In embracing these principles, we strive to make a positive impact, be a catalyst for change and contribute to a sustainable future for all.

Why?

Because Mars is for quitters.

WE SUPPORT

UN GLOBAL COMPACT

LETTERS TO SHAREHOLDERS

Peter Turnbull AM
Non-Executive Chair

A message from the Chair

I am pleased to present the Calix Limited Annual Report for the 2023 Financial Year (FY23).

Calix has continued to gather momentum, propelled by Environmental, Social and Governance (ESG) tailwinds, as the world focuses its attention on escalating climate change realities and the urgent need for widespread global decarbonisation. Despite the slowdown in global growth driven by the impact of the COVID-19 pandemic, war in Ukraine, significant inflationary pressures and supply chain disruptions, the interest, commitment and capital available for solutions that align with ESG goals (particularly those that will assist governments, industry and investors to meet their net zero commitments) continue to grow very substantially.

Groundbreaking policies to drive decarbonisation were announced across the planet in FY23, including:

- a Carbon Border Adjustment Mechanism and Net-Zero Industry Act in Europe;
- the Inflation Reduction Act and Regional Direct Air Capture hubs in the USA; and
- Safeguard Mechanism, Powering the Regions Fund, National Reconstruction Fund, and Critical Minerals Strategy in Australia.

These policies recognise the need for urgent, affordable and scalable solutions that balance social, economic and environmental sustainability to solve some of the greatest global challenges of our time.

Calix is urgently developing great businesses with the potential to enable: the electrification of industries; efficient capture of unavoidable emissions; and new sustainable industrial processes. Despite an otherwise uncertain global economic outlook, I firmly believe that Calix is well placed to thrive as the Group works towards progressing its core purpose.

"Groundbreaking policies to drive decarbonisation were announced across the planet in FY23"

Strong balance sheet propels investment in growth and commercialisation

In FY23, Calix achieved a gross profit of $6.2m, up from $5.2m in the 2022 Financial Year (FY22). An increase in sales revenue to $29.6m, compared with $20.8m in FY22, was supported by new sales within existing regions of Calix's Water business, as well as new sales regions across the USA.

Throughout FY23, Calix continued its planned investment in people, plant and equipment to enhance and accelerate technology development, including a new laboratory at Bacchus Marsh in Victoria, and professional services to advance commercialisation. Some of this investment has been supplemented by grants and tax rebates from governments in the various countries in which we operate. A $60.0m private placement in October 2022 and a $21.6m Share Purchase Plan, which was completed in November 2022 with strong support from our existing shareholders, will provide ongoing capital and balance sheet strength to pursue our strategic objectives.

Leilac

Calix's CO_2 mitigation line of business, Leilac, exists to accelerate the transition to net zero by developing the most efficient and effective solution for the abatement of industrial and atmospheric CO_2. It has continued a significant transformation in FY23 as it continued to commercialise and scale its technology for cement and lime decarbonisation. This follows an investment in Leilac from one of the world's leading decarbonisation investors, Carbon Direct, of €15m in September 2021 for a 6.98% stake to accelerate the deployment of the Leilac technology.

Key commercialisation milestones during the financial period include:

- Leilac signed a global licence agreement with Heidelberg Materials (FWB: HEI);
- three projects with CEMEX S.A.B. de C.V. (NYSE: CX) were announced in Germany, Poland and the USA; and
- a zero-emissions lime project with Tarmac, a CRH company (LON: CRH, NYSE: CRH) passed the due diligence phase of the UK Government's Industrial Carbon Capture funding scheme.

In FY23, Leilac also announced the application of the Leilac technology for Direct Air Capture (DAC) in a partnership with DAC company, Heirloom. The partnership aims to integrate Leilac's electric kiln technology into Heirloom's DAC process for removal of atmospheric CO_2. Leilac's pipeline of projects continues to grow, accelerated by the decarbonisation commitments made by industry and governments, and societies' ongoing reliance on cement and lime which will be a long-term need.

Sustainable Processing

Calix's patented core technology platform is designed to help mineral and chemical processing enter the electric age. The Australian Government's Australian Renewable Energy Agency (ARENA) announced a $947,000 grant in November 2022 to support the design of a renewably powered direct hydrogen reduced iron (H-DRI) demonstration plant. Testing and design work for the 30,000 tonne per annum zero CO_2 emissions ZESTY iron plant continues, with a Front-End Engineering and Design study expected to be completed by the end of calendar year 2023. Initial pilot-scale testing showed excellent metallisation of a range of iron ore types with ZESTY.

In November 2022, Calix executed a joint venture with Pilbara Minerals (ASX: PLS) to develop a novel mid-stream lithium processing technology to produce low carbon, low waste, and high value lithium salt. The joint venture made significant progress during FY23 on the detailed engineering and design of a demonstration plant that aims to utilise Calix's electric calcination technology at Pilbara Minerals' Pilgangoora Project with support from an Australian Government grant of $20m. We were pleased to announce in August 2023 the Financial Investment Decision to proceed with the project. In response to significant market demand, Calix is continuing to explore multiple further applications of its electric calcination technology, including for other critical minerals and alumina.

Advanced Batteries

Calix is pioneering a renewably powered, energy efficient and low-cost chemistry agnostic platform technology to produce high-performance nanostructured battery materials. In FY23, the team produced commercial-prototype Lithium Manganese Oxide (LMO) battery cells in collaboration with UK production partner, AMTE (LON: AMTE), demonstrating Calix LMO's high-power capabilities.

Calix also expanded its battery production capability to new chemistries favoured by the electric vehicle segment of the battery market. As the global transition to electric vehicles and energy grids powered by renewables and storage accelerates, demand for affordable, more sustainable lithium-ion battery materials with superior performance and safety is growing. By 2030, global battery capacity is expected to grow more than fivefold with an estimated total addressable market of over US$400b.

Biotech

Calix's Biotech business is developing high surface area magnesium oxide materials with high bioactivity for target applications in agriculture, marine and antimicrobial resistance (AMR). In agriculture, additional field trials are underway to extend the registration label of Calix's crop protection product, BOOSTER-Mag.

In the marine sector, Calix successfully completed tests with leading global coatings firms, with further tests and coatings formulation work underway in at sites across North America, Australia, NZ and Asia. In FY23, Calix became a Tier 1 partner in Australia's Cooperative Research Centre Solving Antimicrobial Resistance in Agribusiness, Food, and Environments (CRC SAAFE), with the first project underway, studying the application of Calix bioactive materials in intensive livestock. AMR is internationally recognised as a global crisis, projected to cost the global economy US$100 trillion and cause 10 million deaths per year by 2050, thus requiring urgent solutions.

Water

Water and wastewater management is a challenge that can threaten vital waterways, impacting health and the environment. Calix's magnesium oxide materials provide safe, more effective, economical and sustainable solutions for the treatment of water and wastewater.

New product development has helped to secure new business within existing hydration plant regions in the Pacific Northwest and Upper Midwest of the United States. Revenue growth of 14.2% coupled with strong margins led to a gross profit increase of 28.6%. Revenue growth accelerated during the year, with growth in the second half of FY23 up 28% compared with the same period in FY22.

Regulatory tailwinds in North America continue to drive growth in the magnesium hydroxide market.

In FY23, significant progress was made in building two new hydration plants in Ripon, Wisconsin and Lufkin, Texas, with both new plants expected to commence operations by the end of 2023.

Continuous improvement in ESG practices

As Calix endeavours to solve critical environmental global challenges, we are also making progress towards greater sustainability in our own operations, delivering continuous improvement in our internal ESG practices. In November 2022, Calix reaffirmed its commitment to the United Nations Global Compact (UNGC) – the world's largest sustainability initiative – of which Calix has been a participant since 2020. The UNGC and Sustainable Development Goals (SDG) continue as guiding beacons for Calix's sustainability journey.

In FY23, the board established a new Sustainability Committee. In addition to updating the Board Charter and Code of Conduct Policy, we replaced the Remuneration and Nomination Committee with a new People and Culture Committee and charter, and updated charters for the Audit and Risk Committee, and Technology Committee. Also, during the financial period, we completed our inaugural greenhouse gas assessment, which is providing an accurate and transparent foundation on which Calix will develop an emission reduction roadmap for its operations and supply chain in FY24.

Complemented by various initiatives to foster health, wellbeing, diversity and inclusion, the safety of Calix's employees continues to be our primary operational focus. All injuries, incidents, investigation outcomes and near-misses are reported to the board, demonstrating a strong reporting culture, as we, of course, work to prevent reoccurrence and improve safety in general. We continue to foster a forward-looking preventive culture and seek to learn from all relevant incidents and safety related events.

People development and culture

Calix has a dynamic workforce spread across many countries. We understand that our people drive our performance. Calix fosters a culture of providing on-going personal and career development opportunities to our workforce, as well as a framework of close communication and listening with our workforce. As we grow rapidly, we continue to focus on building a collaborative, diverse and supportive culture across the whole team around the world.

Proactive board succession and renewal

Over the last few years, the board has continued to maintain a proactive approach to board succession and renewal, with the goal of ensuring the size and composition of the board is appropriate to support the continued delivery of Calix's growth strategies, as well as being positioned to meet prevailing best practice governance standards.

As part of this process, in February 2023, Calix announced the appointment of Alison Deans as a Non-Executive Director and the retirement of Non-Executive Director, Dr. Jack Hamilton from the Calix board of directors. Representing the next stage of the board renewal process, Alison Deans' appointment, in addition to further renewal being planned, will strengthen the collective skills and experience of the Calix board. On behalf of the board of directors and the whole Calix team, I would like to express my sincere gratitude to Jack Hamilton for his substantial and valuable contribution to Calix over many years. His commitment and wise counsel have provided considerable benefit to the Group. We all wish him well in the future.

We expect to make further announcements in relation to board renewal and expansion in the near future.

On behalf of the board of directors, I would like to thank Calix's customers and partners for their continued commitment and collaboration as we work together to solve global challenges. The board also sincerely thanks all Calix's employees and contractors for their tireless efforts, talent and unwavering commitment to our purpose and goals. We enter FY24 with significant ambitions to continue to progress our key projects and develop and commercialise the next applications of Calix's remarkable core technology platform. It is thanks to the depth and breadth of our growing team and our network of collaborative partners that we can hope to realise the potential we see.

Finally, we would like to thank our Calix shareholders for their vital and ongoing support, and we look forward to keeping you informed of Calix's progress across FY24.

Peter Turnbull AM
Non-Executive Chair

Phil Hodgson
Managing Director and CEO

A message from the CEO

As outlined in the Chair's message, against a background of some financial turbulence, the strength of the global thematic of decarbonisation of industry continues to grow. We successfully raised capital in November 2022 to invest in the opportunities this presents for Calix, and we have done so.

Our biggest investment in the 2023 financial year (FY23) has been in our team, which has grown by 61 full-time positions to 129, including 37 new engineers and scientists, to support research, development, and the delivery of a growing number of projects and opportunities. Our people, from our newest recruits to those who have been on the journey from the start, are consistent in their determination to make a positive difference for the longer-term, coupled with a sense of urgency. It's a mindset that aligns with our values, is the core of our success to date, and will continue to drive our success into the future.

"Our biggest investment in the 2023 financial year (FY23) has been in our team, which has grown by 61 full-time positions to 129."

Accelerating commercialisation to address global challenges

The 2022 financial year marked the first realisation of our strategy to seek equity directly into our subsidiary businesses to focus on rapid commercialisation, with the partial spin out of our cement and lime decarbonisation business, Leilac. In FY23, we have started to realise the benefits we anticipated from such a strategy, with the investment enabling significant growth in a specialist cement and lime decarbonisation focused team. This has resulted in a rapid project pipeline build. Leilac's licence agreement with Heidelberg Materials (FWB: HEI), three projects with Cemex S.A.B. de C.V. (NYSE: CX) and another with Tarmac (LON: CRH, NYSE: CRH), plus a new partnership with Direct Air Capture company, Heirloom are all examples of our strategy in action.

Our joint venture with Pilbara Minerals (ASX: PLS) passed another significant milestone in August 2023, with a positive Financial Investment Decision from the boards of both companies. The decision follows the official formation of the joint venture in November 2022. A demonstration plant, using Calix's patented electric calcination technology, aims to significantly reduce carbon emissions and waste, while producing small but commercial quantities of a concentrated sustainable lithium salt product. We believe it's a compelling proposition for the lithium industry, creating environmental and economic value, and rationalising supply chains for key battery markets in Europe and the US.

Our water business continued a very positive growth trend that started after the impact of the COVID-19 pandemic subsided. Despite the delays in deployment of new manufacturing facilities, largely resulting from the pandemic, they are now nearly ready to launch into two significant markets in Texas and Wisconsin, where we have already started seeding sales. We remain excited by the organic growth potential in the US, especially as regulations tighten on wastewater discharge. We will remain focused on this in the 2024 financial year (FY24).

The next big opportunities

While we progress direct sales in water, and licensing, joint ventures and spin-out strategies to expedite the commercialisation of cement, lime and lithium, Calix's next big opportunities are developing rapidly. Driven by our talented team of scientists and engineers, and supported by collaborations and partnerships with academia and industry, we are developing our Zero Emissions Steel TechnologY or "ZESTY", and more recently accelerating new applications such as alumina, in response to policy change and market demand. They represent significant opportunities.

We also commissioned our new laboratory at our Bacchus Marsh facility in Victoria, Australia to significantly increase our capability and capacity to assess new opportunities for the core technology. To date, this area has been a bottleneck in our growth, as inbound interest has far exceeded our assessment capacity. We will continue to invest in increasing our assessment capacity in FY24 in response to this demand.

Fuelling delivery

Calix's strong balance sheet continues to provide the capacity to pursue commercialisation opportunities across the breadth of the Company's business. It is the result of solid revenue and margin growth in our water business in the US, grants and tax rebates from government, and ongoing fiscal prudence. It was further bolstered by the capital raised through a private placement and share purchase plan in late 2022. By design, we retain flexibility to pursue the right capital strategy for each investment opportunity across the business.

Looking ahead

In FY23 an unprecedented array of government policies and programs were announced across the planet to support governments, industries and communities to decarbonise and meet net-zero commitments. For Calix, these policies and programs were complemented by demand from industry and investors, despite the turbulent global economic environment. The favourable tailwinds generated by the pursuit of environment, social and governance goals, combined with Calix's business strategy, talented people and solid balance sheet see Calix well positioned for another landmark year in FY24.

In FY24, our primary focus will continue to be developing and applying our core platform technology to multiple industrial decarbonisation challenges. We will progress various key projects through important engineering milestones, including the commencement of civil works for Leilac-2 and construction of the demonstration plant at Pilbara Minerals' Pilgangoora project. We will also urgently develop emerging opportunities, such as electrification of alumina refining, and aim to demonstrate the potential for a more sustainable and cost-effective production process for cathode active materials used in lithium-ion batteries.

In FY24, Calix will combine its water and biotech businesses into a consolidated "Magnesia" line of business. This change is designed to increase the focus, scale and reach of Calix's magnesium-based products to help drive new revenues and support future growth opportunities.

I would like to thank the Calix board for its strategic guidance throughout FY23. I would also like to thank our customers and partners for their ongoing collaboration, and the dedication and support they continue to provide to help us achieve our vision. I would especially like to recognise and thank our people for their unrelenting commitment and drive towards realising our purpose. It is a remarkably talented and determined team. Finally, I would like to thank our shareholders for their continued support and belief in the Company.

We look forward to significantly progressing our businesses in FY24.

Phil Hodgson
Managing Director and Chief Executive Officer
Calix Limited

FY23 HIGHLIGHTS

FY23 achievements

Commercialisation of industrial decarbonisation solutions accelerates

First licence agreement signed for cement

Leilac signed first-of-a-kind global licence agreement with Heidelberg Materials.

19 Oct

20 Oct

Institutional placement

Completion of $60m institutional placement.

8 Nov

15 Nov

Share Purchase Plan

Completion of $21.6m Share Purchase Plan.

Capital raise of $81.6m

to accelerate the commercialisation of Calix's technology for industrial decarbonisation.

ZESTY awarded funding

$947k ARENA grant to help fund BOD and FEED study for renewably powered 30,000 tpa demonstration plant for low emissions iron & steel.

Leilac & CEMEX announced 3 new projects

Studies for full-scale projects announced in Germany, Poland and the US, & progress towards a global licence agreement.

23 Nov

28 Nov

Joint Venture executed with Pilbara Minerals

Supported by $20m MMI grant, the JV aims to develop a novel mid-stream lithium process to produce low carbon, low waste, and high value concentrated lithium salt.

Calix announced as a partner in methanol project for sustainable fuels from CO_2

With funding from the HyGATE Initiative, the project aims to use CO_2 captured by the Leilac technology to produce sustainable fuels.

30 Jan

21 Feb

Leilac signed MOU for global licence for Direct Air Capture with Heirloom

Leilac announced a new application of its core technology for Direct Air Capture of atmospheric CO_2, and executed a memorandum of understanding for a global licence and collaboration agreement with Heirloom.

Calix Limited FY23
financial result highlights

A$74.5m
Cash on hand
(30 June 2022: A$25.0m)

A$29.6m
FY23 revenue
(FY22: A$20.8m)

A$6.2m
FY23 gross profit
(FY22: A$5.2m)

33%
FY23 gross margin
(FY22: 28%)

A$60.0m
Private placement,
October 2022

A$21.6m
Share Purchase Plan,
November 2022

A$10.7m
FY23 grant funding &
tax incentives

A$8.4m
Investment in
capital items

A$3.0m
Investment in additional
people costs

A$1.7m
Investment in additional
commercialisation
support

Investing for growth

Throughout FY23, Calix continued its planned investment in:

- **People** including 32 new engineers, five new people in research and development, and eight people in support of production;
- **Plant & equipment** to enhance and accelerate technology development; and
- **Professional services** to advance commercialisation.

The combined focus on people and the Company's ongoing fiscal prudence has enabled Calix to grow multiple successful lines of business simultaneously into large addressable markets.

Support for decarbonisation investment

The Company's investment costs in people and technology development – specifically R&D and engineering capability – have been partly offset by $10.7m in FY23 in grants and tax rebates from governments in the various jurisdictions in which we operate.

Broader support for decarbonisation investment was also demonstrated by a $60.0m private placement in October 2022 and a $21.6m Share Purchase Plan completed in November 2022.

Strong balance sheet

Calix's strong balance sheet, including its cash position and minimal debt, provides the capacity to pursue commercialisation opportunities across the Company's multiple lines of business.

The Company has retained the flexibility to pursue the right capital strategy for each investment opportunity across its lines of business.

Solid revenue and margin growth

New sales within the existing hydration plant regions of our Water business in the Pacific Northwest and Upper Midwest of the US have driven revenue growth in the US of 14% for the full year, with second half growth of 28% compared with the second half of FY22. Gross margin has also improved, increasing from 28% to 33%.

FY23
KEY PROJECTS

A step closer to sustainable lithium

A demonstration plant that aims to use Calix's patented electric calcination technology to produce a concentrated sustainable lithium product passed its financial investment decision in August 2023. The innovative 'mid-stream' refining process is being developed in a joint venture between Calix and Pilbara Minerals (ASX: PLS) and is supported by $20m in Australian Government funding.

Calix's electric processing technology

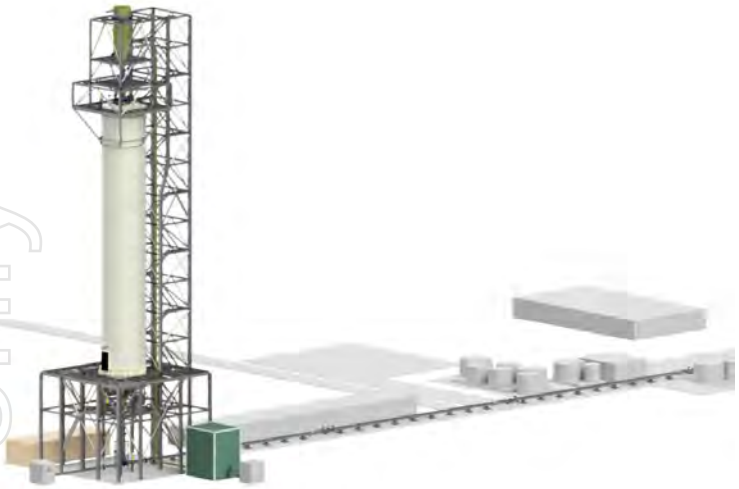
The proposed mid-stream refining plant is designed to show the potential for renewably powered processing of spodumene at the mine site. With a full production capacity of more than 3,000 tonnes per year of concentrated lithium-phosphate salt product, from a feedstock of around 27,000 tonnes per year of spodumene – including lower grade fine spodumene concentrate – the project aims to demonstrate:

- **Reduced carbon intensity** – electrification of the mid-stream process, including spodumene calcining, can enable the use of up to 100% renewably sourced power and deliver a vast reduction in carbon emission intensity of the lithium product.

- **Reduced cost** – lower capital and operating costs with Calix's electric calciner compared with conventional calcining processes.

- **Reduced waste** – a concentrated and near zero-waste lithium product would allow waste material to be left at the mine site, providing further cost and emissions savings through reduced and simplified transport and logistics.

- **Value add** – a lithium rich product produced at the mine site may enable more value to be captured onshore at the mineral resource.



Depiction of a 3.1MW Calix electric calciner for a mid-stream lithium processing demonstration plant.

Mid-Stream Demonstration Plant location and layout.

Enabling low-carbon lithium

Life Cycle Assessment studies commissioned by Pilbara Minerals analysed the carbon footprint of the proposed mid-stream lithium phosphate salt product, in addition to comparing β-spodumene produced via electric calcination and conventional rotary kiln calcination[5].

The study found that electric calcination powered entirely by renewable electricity would reduce the carbon emissions intensity of spodumene calcination by more than 90% compared with a conventional coal-fired rotary kiln, and by more than 80% when compared with natural gas.

Significant emissions reductions are also anticipated from the mid-stream product by avoiding the transport of waste associated with spodumene concentrate. Current practices involve shipping spodumene that is approximately 6% lithium and 94% waste from the mine site to be processed overseas. Production of a zero waste, concentrated lithium phosphate product would further reduce aggregate emissions across the lithium supply chain.

[5]Based on cradle-to-gate Life Cycle Assessment studies completed by Minviro Ltd.: evaluating production of Lithium Hydroxide Monohydrate (LHM) from Pilgangoora spodumene concentrate using conventional calcination; and evaluating the production of lithium phosphate from Pilgangoora spodumene concentrate using Calix's electric calcination technology. The assessments calculated the carbon footprint for the production of each chemical from the mine to the factory gate. A further study evaluated the product carbon footprint of β-spodumene production via conventional and electric calcination.

Rationalising international supply chains

Demand for lithium to support the rapidly growing global battery market continues to intensify. With the battery market now expected to grow five-fold by 2030[6], governments around the world are seeking to develop sovereign capabilities and reliable supply chains.

Electrification of mineral processing and the use of locally sourced renewable energy offers significant opportunities for Australian producers to develop highly competitive and future-proof downstream processing solutions. By doing so, producers could add value to minerals by converting low-value ores into high-value products, reducing emissions and rationalising supply chains.

Commercialisation to the global spodumene industry

Calix and Pilbara Minerals aim to develop an innovative pathway for Australia to become a reliable supplier of sustainably refined lithium to the world. Successful demonstration of the mid-stream process may lead to its commercialisation, with the joint venture able to license the technology to Pilbara Minerals' commercial scale plants and the global spodumene processing industry.

[6]Global lithium-ion battery capacity to rise five-fold by 2030

Carbon footprint impact

– carbon emissions intensity of spodumene calcination by renewably powered electric calcination vs a coal-fired rotary kiln.

– carbon emissions intensity of spodumene calcination by renewably powered electric calcination vs a natural gas-fired rotary kiln.

"Calix is delighted to have successfully passed the Financial Investment Decision milestone for a sustainable lithium demonstration plant developed in our joint venture with Pilbara Minerals. Together, we look forward to demonstrating the potential of our electric calcination technology to dramatically reduce the carbon footprint of Australian lithium."

Andrew Okely
General Manager – Commercial

Leilac's technology: from demonstration to full scale

Leilac is the exclusive licensee of Calix's Low Emissions Intensity Lime and Cement (Leilac) CO2capture technology. It is the collaborative technology partner aiming to accelerate a just transition to net zero by providing the most compelling decarbonisation solution for global cement and lime.

Scaling up – the next milestone

Leilac's demonstration plant – Leilac-2 – aims to develop a retrofittable, integrated module for capture of process CO_2 emissions released unavoidably in the production of cement and lime. Leilac-2 follows the Leilac-1 pilot, which successfully demonstrated separation of unavoidable process emissions, with no additional chemicals or processes. Leilac-2 is an important de-risking step for the full-scale commercialisation of the Leilac technology as a retrofit to an existing cement plant. It is designed to pave the way for the Leilac technology to be optimised, replicated and applied at any scale.

Leilac-2 aims to provide:

- Separation capacity of ~100,000 tonnes per year of CO_2 at >95% purity;
- A retrofittable, modular design that can be replicated and applied at any scale;
- Minimal disruption to the host plant;
- Future-proof fuel options, including alternative fuels; and
- Progress on the electrification of the Leilac technology.

Leilac-2 is designed to deliver a lighter, cheaper and simplified multi-tube furnace module. Importantly, the design accelerates the vision of a low-cost, scalable and accessible capture solution. Leilac-2 commissioning and testing was planned to commence in late 2024. A longer than expected permitting process is likely to push commissioning and testing into 2025.

The evolution of the Leilac technology.

Towards a global roll out

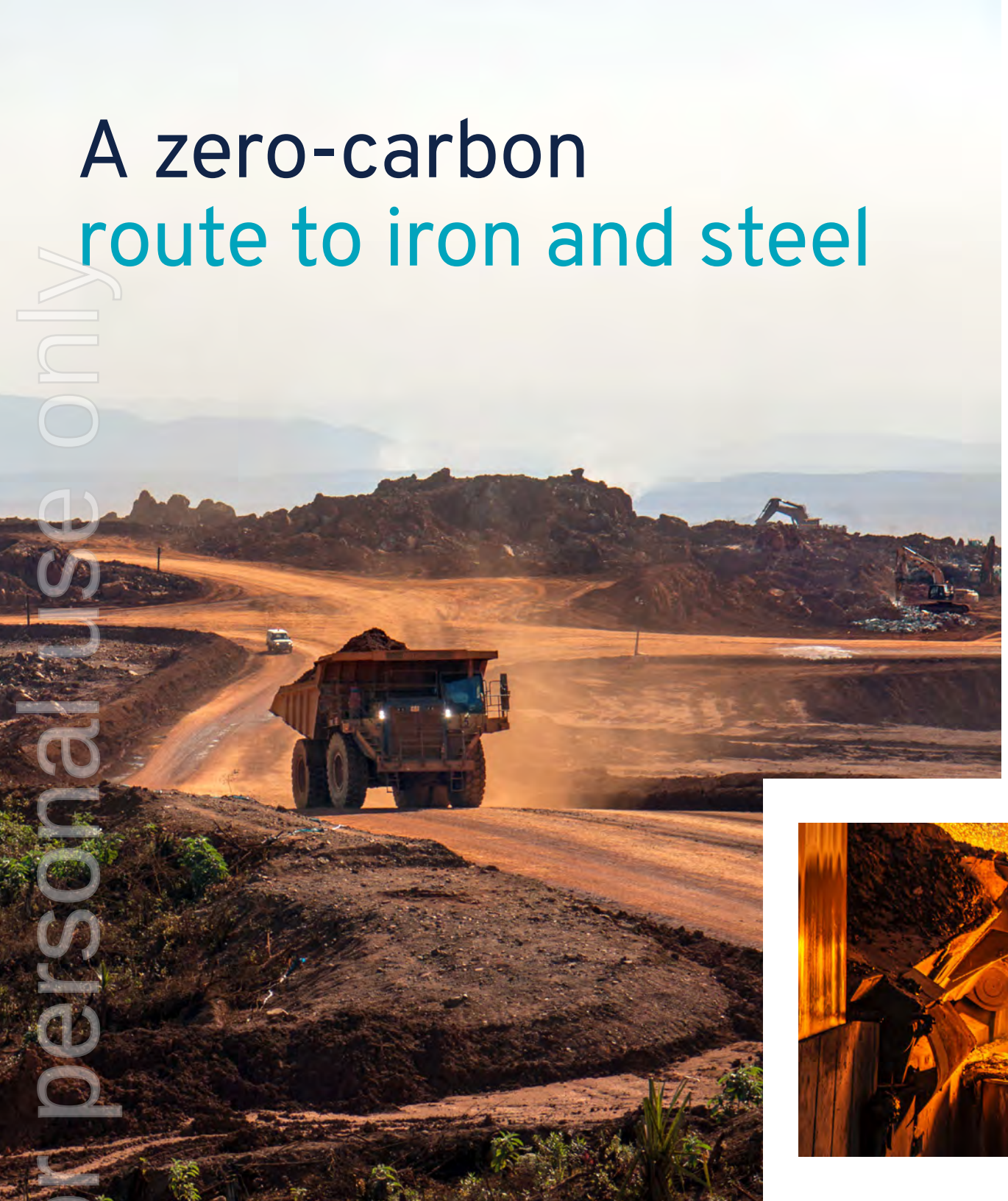
Leilac is currently undertaking multiple detailed engineering studies for full-scale implementations of the Leilac technology at cement plants around the world, offering a near-term, commercially relevant solution. Leilac's technology will ultimately be delivered through a "blueprint" model, for construction by local companies using local resources. This model is designed to maximise the scale and speed of our impact as we seek to provide low-cost and accessible decarbonisation solutions for the global cement industry.

www.leilac.com

"Leilac, in collaboration with its global partners, continues to develop, scale and implement solutions that can enable the cement industry to meet its climate commitments and protect jobs and prosperity in a just transition to sustainable cement."

Daniel Rennie
CEO, Leilac

A zero-carbon route to iron and steel



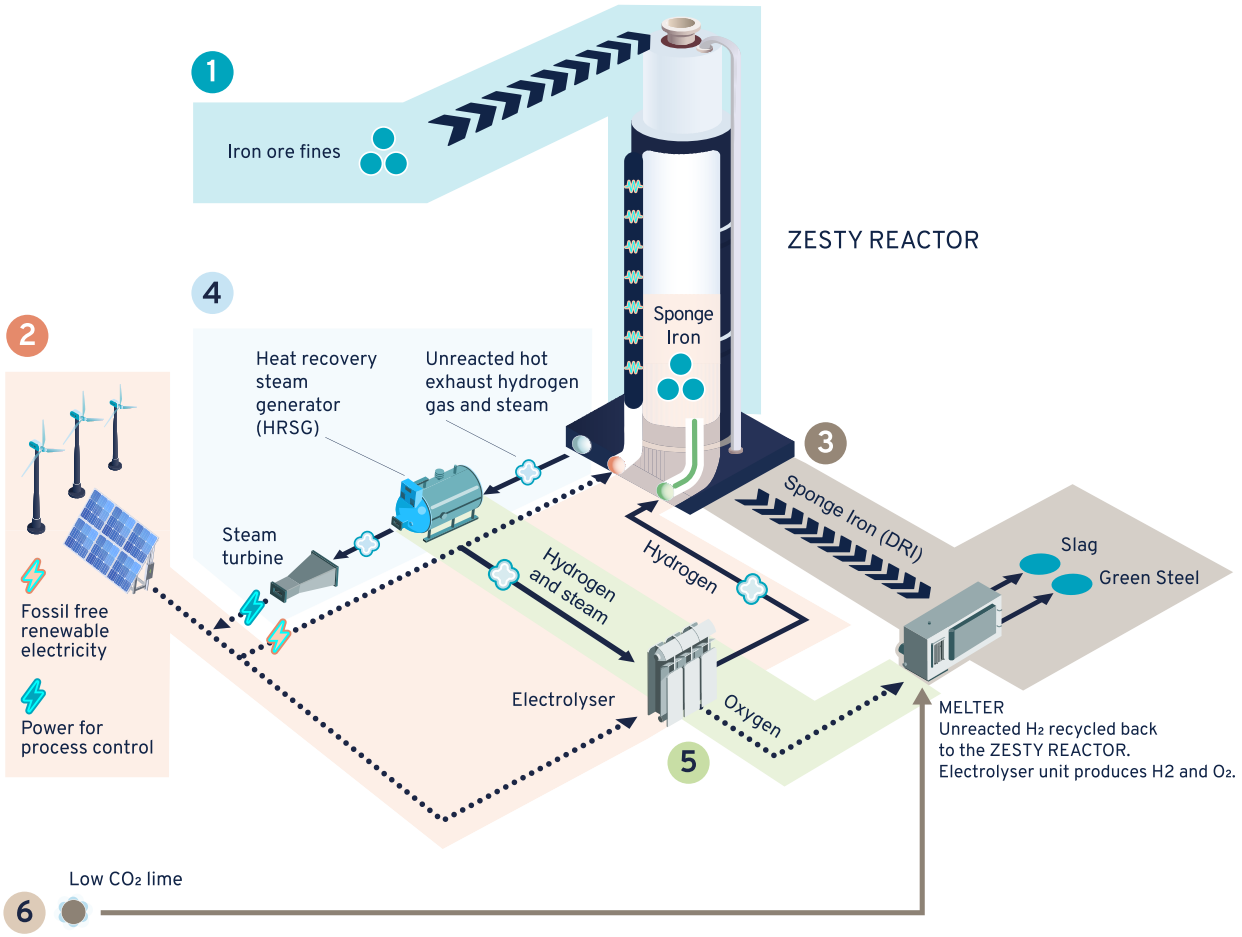
Calix's Zero Emissions Steel TechnologY (ZESTY) is designed to help decarbonise one of the world's most carbon-intensive industrial processes – iron and steel production. The industry accounts for ~7-9% of global CO_2 emissions, with the majority resulting from the use of metallurgical coal in the reduction of iron ore to metallic iron[7].

ZESTY is designed to enable direct hydrogen reduction of iron ore (H-DRI) in a renewably powered reactor to produce green iron and ultimately, green steel. It provides the potential for a zero-carbon route to iron and steel that can help add value to local iron ore exports, future-proof local iron and steel production, and support sustainable global development.

[7]Climate change and the production of iron and steel. World Steel Association. 2021

Electrification-ready

ZESTY's indirect heating approach is well suited for electrification, including with renewable and intermittent energy sources. Electrification also means no combustion. With ZESTY, hydrogen is consumed only as a reductant, not as a fuel, and can be simply recycled in the process. This key feature enables ZESTY to target the most efficient and economical use possible of hydrogen.



Process flow diagram for ZESTY green steel production.

Pilot results

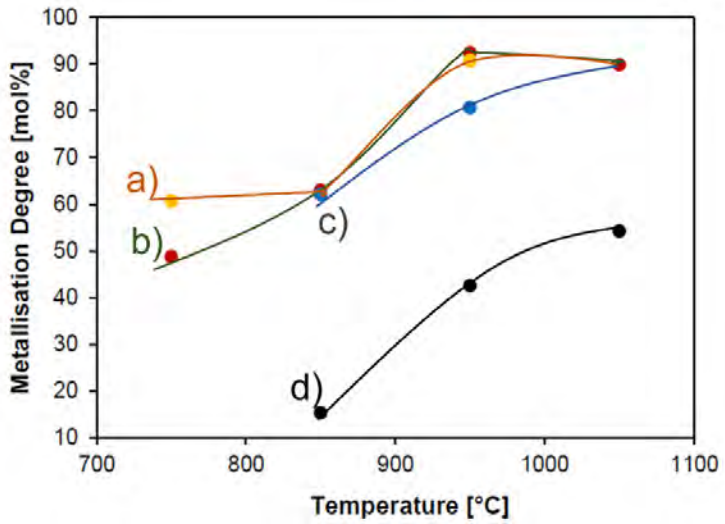
Pilot-scale testing shows that Calix's ZESTY technology can produce a H-DRI product approaching commercial grade.

Excellent metallisation was achieved for Siderite and Goethite / Hematite ores. ZESTY's compatibility with small particle sizes was found to facilitate fast rates of metallisation, allowing for significantly shorter residence times and lower temperature operation than a conventional blast furnace. Hematite makes up 96% of Australia's exported iron ore[8] and is not otherwise suited to most electric arc furnace (EAF) methods.

Reduction and metallisation extents for the non-porous and dense magnetite sample were lower, reaching a maximum metallisation degree of 54% at 1050°C. An increase in residence time and/or temperature for the processing of dense, non-porous magnetite samples is expected to lead to improved reduction and metallisation of magnetite by ZESTY.

[8]Iron Ore | Geoscience Australia

		Fe (Wt %)	D50 (µm)	SSA (m^2/g)	Pore Volume (cm^3/g)
A)	Siderite	43	87	25	0.035
B)	Goethite / Hematite	57	130	15	0.034
C)	Goethite / Hematite	59	129	14	0.039
D)	Magnetite	67.5	38	0.8	0.003



Pilot-scale metallisation results for ZESTY. Multiple ore types tested with semi-continuous operation at throughputs up to 100 kg/h.

Next steps

An expanded testing program, using a range of ore types from Australia and overseas, has commenced. Further planned pilot-plant modifications will enable continued exploration of critical performance parameters, as well as ore selection and pre- and post-processing requirements.

The ongoing R&D program is informing a Front-End Engineering Design (FEED) study for a 30,000 tonne per annum, zero CO_2 emissions ZESTY-iron demonstration plant. The FEED study is supported by a $947,035 grant from the Australian Government's Australian Renewable Energy Agency (ARENA) and is expected to be completed by the end of 2023.

"Australia's combination of iron ore and renewable energy resources can help make Australia a leading exporter of not just iron ore, but green iron and green steel. It presents an enormous and important environmental and economic opportunity. We look forward to continuing to work closely with ARENA and our partners in industry and academia as we develop and commercialise ZESTY."

Tom Dufty
Technology Innovation Manager

New lab facilities accelerating technology development

A new multi-purpose laboratory opened at Calix's Bacchus Marsh facility in Victoria, Australia. It provides a significant increase to Calix's research and development capabilities and capacity, helping to speed up project development and drive new innovative applications of Calix's core platform technology.

Supported by grant funding from the Australian Government, the new facilities are helping to transform Calix's manufacturing capability for agriculture, marine and antimicrobial resistance applications, as well as freeing up existing resources for other applications across the Company, including developing Calix's Advanced Batteries and Zero Emissions Steel TechnologY. Further new equipment will add significant additional testing capacity to assess materials from prospective partners and customers for all lines of business. The ability to test and analyse materials on site supports rapid learning and feedback cycles across Calix's research programs, propelling the development of the technology and its applications.

In addition to its in-house facilities, Calix continues to collaborate with world-class research teams across the world, including through our partners at the Future Battery Industries Cooperative Research Centre (CRC), Solving Antimicrobial Resistance in Agribusiness, Food, and Environments CRC, Heavy Industry Low-carbon Transition CRC, the Deakin University Battery Research and Innovation Hub, and the Deakin University Recycling and Clean Energy Commercialisation Hub.

FUTURE BATTERY INDUSTRIES CRC

DEAKIN UNIVERSITY

HILT CRC

CRC SAAFE

"The new laboratory has provided a significant boost to the productivity of our R&D teams. Coupled with best practice procedures and a passionate and talented team, the new facility is enabling us to accelerate innovation within the company and with our network of collaborators in industry and academia."

Shammi Ferdousi
Materials Engineer

OUR BUSINESSES

Leilac

Leilac exists to accelerate a just transition to net zero by providing the most compelling decarbonisation solution for global cement and lime.

Business overview

Cement and lime provide the foundations of our societies and economies. They are also amongst the largest industrial contributors to climate change, accounting for approximately 8% of global CO_2 emissions[9].

Leilac's technology is purpose built to efficiently capture unavoidable process CO_2 emissions from cement and lime production, without additional chemicals or processes. It is designed to be scalable, retrofittable, energy agnostic and electrification ready to provide flexible and economical pathways to sustainable industry.

Leilac's technology is also being developed to deliver zero emissions lime for capture of emissions from other hard-to-abate sectors, as well as Direct Air Capture (DAC) of CO_2 from the atmosphere.

Market trends

Government policies and industry commitments continue to drive industrial decarbonisation across the globe.

In Europe, the emissions trading scheme reached over €100 per tonne of CO_2, up from less than €20 only three years ago. A Carbon Border Adjustment Mechanism was introduced, placing a carbon tariff on imported carbon-intensive products, such as cement. As part of the Green Deal Industrial Plan, the EU also introduced the Net-Zero Industry Act. The Act identifies carbon capture and storage as one of eight strategic net-zero technologies and includes a target to develop 50 million tonnes of annual CO_2 storage capacity in the EU by 2030.

In the United States, the landmark Inflation Reduction Act was passed, representing the largest climate investment in US history. It included an increased incentive of US$85 per tonne to capture and permanently store industrial CO_2.

[9]Trends in global CO_2 emissions; 2016 Report, The Hague: PBL Netherlands Environmental Assessment Agency

FY23 achievements

Leilac signed its first global licence agreement in October 2022 with Heidelberg Materials, one of the world's largest cement companies. In an industry first, Leilac will earn a royalty fee based on a percentage of the value of CO_2 captured by its technology. The perpetual agreement applies to any Heidelberg Materials facility where the Leilac technology is installed.

Leilac's growing pipeline of projects include three projects announced by Cemex and a zero-emissions lime project with Tarmac, which passed the due diligence phase of the UK Government's Industrial Carbon Capture funding scheme.

In FY23, Leilac also announced a partnership with DAC company, Heirloom. The partnership aims to integrate Leilac's electric kiln technology into Heirloom's DAC process for removal of atmospheric CO_2.
A signed Memorandum of Understanding outlines the key terms for a global licence and collaboration agreement.

FY24 priorities

1. Complete permitting and civil works for Leilac-2.
2. Progress projects through the Leilac project pipeline.
3. Complete the Basis of Design for the green methanol consortia project.

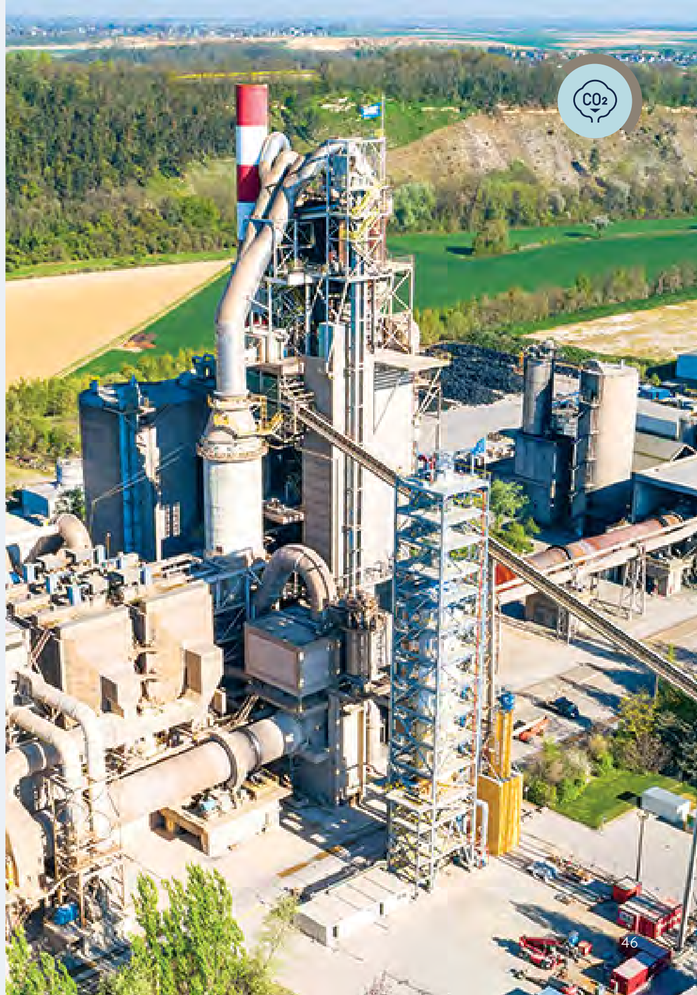
SDG Impact

"Carbon Capture and Storage (CCS) plays a major role in decarbonizing the industry sector in the context of 1.5°C and 2°C pathways, especially in industries with higher process emissions, such as cement."
SR1.5. Chapter 2. IPCC. 2018

Leilac is the collaborative technology partner seeking to enable a sustainable future for cement and lime in a net-zero world. Our potentially lowest cost carbon abatement solution aims to equip producers to take urgent action against climate change and protect their industries' jobs and prosperity.

Like the Sustainable Development Goals (Global Goals), Calix recognises the need to balance social, economic and environmental sustainability.

Leilac's innovation, development and partnerships are aligned with the Global Goals, helping to accelerate its work to create sustainable industries and a sustainable planet.



Sustainable Processing

Business overview

Calix's patented core platform technology aims to help mineral and chemical processing enter the electric age. An indirect radiative heating approach separates the heat source from the chemical reaction and removes the need for combustion. Compatible with renewable sources of energy and grid-load balancing applications, Calix's technology is also designed to enable efficient use of green hydrogen in place of conventional, carbon-intensive reductants.

Calix's innovative mineral processing solutions are designed to enhance recovery of ore and create near zero-waste products. At-mine processing has the potential to rationalise supply chains, reduce the total CO_2 footprint of minerals, and add value to mineral exports.

Market trends

Critical minerals essential to a decarbonising global economy were the source of significant geopolitical interest in FY23, as governments sought to develop sovereign capabilities and reliable supply chains.

The US-Australia Climate, Critical Minerals and Clean Energy Transformation Compact was announced. It aims to fast-track critical mineral supply chains and provide access to US capital for Australian companies. In Europe, the Critical Raw Materials Act also aims to diversify and enhance the resilience of EU critical raw material supply chains.

In Australia, the $15 billion National Reconstruction Fund includes up to $3 billion for renewables and low emission technologies and $1 billion for value-adding in resources. An additional $400m was announced for Critical Inputs for Clean Energy Industries, such as steel, cement and lime, and alumina.

FY23 achievements

FY23 saw considerable focus on the development of Calix's Zero Emissions Steel TechnologY (ZESTY). A $947,035 grant from the Australian Government's Australian Renewable Energy Agency (ARENA) is supporting the design of a renewably powered direct hydrogen reduced iron (H-DRI) demonstration plant. Initial pilot-scale testing showed excellent metallisation of a range of iron ore types with ZESTY. The ongoing R&D program is informing a Front-End Engineering Design (FEED) study for the 30,000 tonne per annum, zero CO_2 emissions ZESTY-iron demonstration plant.

In November 2022, Calix executed a joint venture with Pilbara Minerals to develop a novel mid-stream lithium processing technology to produce low carbon, low waste, and high value lithium salt. The joint venture made significant progress during FY23 on the detailed engineering and design of a demonstration plant that aims to utilise Calix's electric calcination technology at Pilbara Minerals' Pilgangoora Project. The proposed demonstration plant is supported by a $20m grant under the Australian Government's Modern Manufacturing Initiative.

In response to significant market demand, Calix continued to explore and develop further applications of its sustainable processing technology, including to other critical minerals and alumina.

FY24 priorities

1. Commence the construction of the demonstration plant at Pilbara Minerals' Pilgangoora project.
2. Expand ZESTY's ore testing program.
3. Complete a FEED study for the ZESTY demonstration plant.
4. Complete a pre-FEED study for Alumina.

SDG Impact

To reach the Sustainable Development Goals on climate change and clean energy, hard-to-abate sectors of our industry that traditionally rely on carbon intensive heating sources and feedstocks must become compatible with clean alternatives.

Calix's technology is energy agnostic and electrification-ready, providing sustainable and economical pathways for industrial processes to transition to clean energy sources, including renewable electricity.

From electrification, to enabling green steel through hydrogen reduction, to reducing the waste and CO_2 footprint of mineral processing with innovative refining solutions, Calix is enabling sustainable industrial processing.

Advanced Batteries

Business overview

As the global transition to electric vehicles and energy grids powered by renewables and storage gathers pace, demand for lithium-ion battery materials is growing. In a decarbonising global economy, advanced battery materials will need to deliver superior performance and safety, while reducing costs and environmental impact.

Calix is pioneering a renewably powered, energy efficient and low-cost chemistry agnostic platform technology designed to produce sustainable high-performance nanostructured battery materials.

Market trends

Growth in the global battery market is outpacing previous projections. By 2030, global battery capacity is now expected to grow more than five fold to 5,500 GWh, reaching a market value of over US$400b[10].

Government policies, such as the US Government's US$369b Inflation Reduction Act and the European Critical Minerals Act, are driving efforts to build sovereign capabilities and supply chains. This has increased demand for localised, high quality and sustainable battery material production.

FY23 achievements

In FY23, the Advanced Batteries business successfully produced 4Ah commercial-prototype battery cells using Calix Lithium Manganese Oxide (LMO) cathode powder, in collaboration with UK production partner, AMTE Power. Additionally, Prototype Single Layer Pouch (SLP) cell testing demonstrated Calix LMO's impressive high-power capabilities.

Improvements to Calix's high-power LMO cathode materials continued, including enhanced long-term cycling stability. Calix also continued its productive collaboration with Deakin University, including material testing with their BatTRI-Hub pilot-scale production line and an agreement for further testing with the Deakin Recycling and Clean Energy Commercialisation Hub (REACH).

Informed by continuous engagement with key players in the battery market, the high-power battery segment (for applications such as power-tools, industrial electric vehicles, and electric 2-wheelers) was identified as a target beachhead market.

In FY23, the Advanced Batteries business expanded its cathode production portfolio to include additional battery chemistries. Early lab-scale results show successful production of Lithium Iron Phosphate (LFP) and Lithium Nickel Manganese Oxide (LNMO) cathode materials. The production of new battery chemistries may open opportunities in larger segments of the battery market and demonstrate the potential of Calix's production methods as a more sustainable and low-cost chemistry agnostic platform technology.

[10]Global lithium-ion battery capacity to rise five-fold by 2030

FY24 priorities

1. Include Calix's battery module in a consumer product format.
2. Complete the FEED for a demonstration facility for cathode production.
3. Develop a commercial format cell with a new Calix electrode chemistry.

SDG Impact

Batteries are an essential enabling technology for our clean energy future, decarbonising transport and stabilising renewably powered energy grids.

The ongoing, rapid growth of the global battery market makes finding more economical and sustainable production methods increasingly important to meeting the Sustainable Development Goals.

Calix's low-cost, simple and safe battery chemistry shows significant promise, potentially enabling improved efficiencies, and a reduction in cost and environmental footprint of energy storage options.

Biotech

Business overview

Calix's Biotech business is developing high surface area magnesium oxide materials with unique bioactive properties for three target applications:

Agriculture
Reducing dependence on lethal chemical pesticides is an important challenge for the agriculture industry. Calix BOOSTER-Mag is a safe, low-cost and environmentally sustainable alternative to conventional insecticides. Now registered in Australia, BOOSTER-Mag provides non-lethal pest suppression, designed to enable reduced use of conventional insecticide without compromising yield or yield quality.

Marine
Marine biofouling increases hull surface roughness, fuel consumption and greenhouse gas emissions. Conventional anti-foul paints and coatings are toxic and have well documented negative effects on the marine environment. To deliver more sustainable marine-fouling and corrosion control, Calix is developing non-toxic bioactive additives that aim to enable a material reduction in the use of toxic biocides.

Antimicrobial Resistance (AMR)
Following many years of overuse and the development of resistance, reducing reliance on conventional pesticides, biocides and antibiotics is urgently needed. The antimicrobial properties of Calix's unique bioactive materials, with low resistance development potential, offer a promising sustainable alternative to conventional actives.

Market trends

Agriculture: non-conventional pesticides, that is, biologicals, are predicted to grow at 15% p.a. for the next 10 years,[11] largely driven by the ongoing prohibition of many conventional pesticides.

Marine: with increasing focus on emissions from shipping, the International Maritime Organisation has adopted a new emissions reduction strategy[12] and is strengthening biofouling measures[13].

Antimicrobial Resistance: AMR is internationally recognised as a global crisis, projected to cost the global economy US$100 trillion and cause 10 million deaths per year by 2050[14].

FY23 achievements

Agriculture: Calix continued to develop a non-lethal insecticide alternative product for potential introduction to the Australian market. Additional field trials are underway that aim to extend the label of Calix's current BOOSTER-Mag registration. A second season of field trials is underway in Europe.

Marine: Calix successfully completed phase 2 static tests with leading global coatings firms. Following this success, ongoing dynamic tests and coatings formulation work is underway in different marine antifouling sites across North America, Australia / NZ and Asia.

Antimicrobial Resistance: in FY23, Calix became a Tier 1 partner in Australia's Cooperative Research Centre Solving Antimicrobial Resistance in Agribusiness, Food, and Environments (CRC SAAFE). Calix's novel materials will be used for investigating new AMR solutions in agriculture, including health and food applications. The first project is underway and will study the application of Calix bioactive materials in intensive livestock.

FY24 priorities

Continue to develop and commercialise Calix's core technology for applications in agriculture, marine and antimicrobial resistance.

SDG Impact

The current use of particular products in agriculture, shipping and pharmaceutical industries damages ecosystems on land and below water, threatening biological diversity and risking future outbreaks of infectious diseases. To reach the Sustainable Development Goals, solutions that enable the sustainable use of our land and oceans are needed.

Calix's magnesium oxide based materials are non-toxic and exhibit unique bioactive properties. Their continued development offers multiple potential applications that can replace polluting or damaging products in agriculture and marine coatings, and help address the rise of antimicrobial resistance.

[11] Insightace analytic
[12] 2023 IMO Strategy on Reduction of GHG Emissions from Ships
[13] Draft revised Biofouling Guidelines approved at PPR 10th session
[14] United Nations Environment Programme (2022). Environmental Dimensions of Antimicrobial Resistance: Summary for Policymakers.

Water

Business overview

Water and wastewater management is a challenge that can threaten vital waterways, impacting health and the environment.

Effective management of our water and wastewater helps to protect freshwater systems, our oceans and human health by preventing detrimental pathogens, nutrients and other types of pollution from entering the environment.

Calix's ALKA-Mag+, AQUA-Cal+ and ACTI-Mag provide safe, effective, economical and sustainable solutions for the treatment of water and wastewater.

Market trends

In North America, regulatory tailwinds continue to drive growth in the magnesium hydroxide market.

For wastewater, increased regulation regarding nitrogen removal is creating demand for solutions that boost alkalinity and maintain effective microorganism activity.

For the potable water market, strengthened regulation on residual lead and copper requires alternative pH control solutions to minimise the corrosivity of water within the distribution system.

FY23 achievements

In FY23, the development of ALKA-Mag+ has helped to secure new business within existing hydration plant regions in the Pacific Northwest and Upper Midwest of the US.

Revenue growth of 14.2% coupled with strong margins led to a gross profit increase of 28.6%. Revenue growth accelerated during the year, with growth in the second half of FY23 up 28% compared with the same period in FY22.

Throughout the financial period, efforts were made to progress the building of two new hydration plants in Ripon, Wisconsin and Lufkin, Texas. Both plants are planning to commence operations by the end of the 2023 calendar year. The new plants will support sales in new regions, including Wisconsin, Illinois and Texas.

Finally, the Water business has solidified relationships with two new distributors in the wastewater treatment market, and another in the potable water treatment market. The three distributors share a philosophy of providing world class products, service and technical credibility.

FY24 priorities

Deliver continued growth in the US and Asia.

SDG Impact

Water sits at the heart of sustainable development. Clean water and sanitation are a universal human right and underpin all economic development, poverty reduction and environmental sustainability.

Calix's safe and sustainable products for water and wastewater management reduce pollution and minimise the release of hazardous chemicals and materials into our water systems.

SUSTAINABILITY

Sustainability

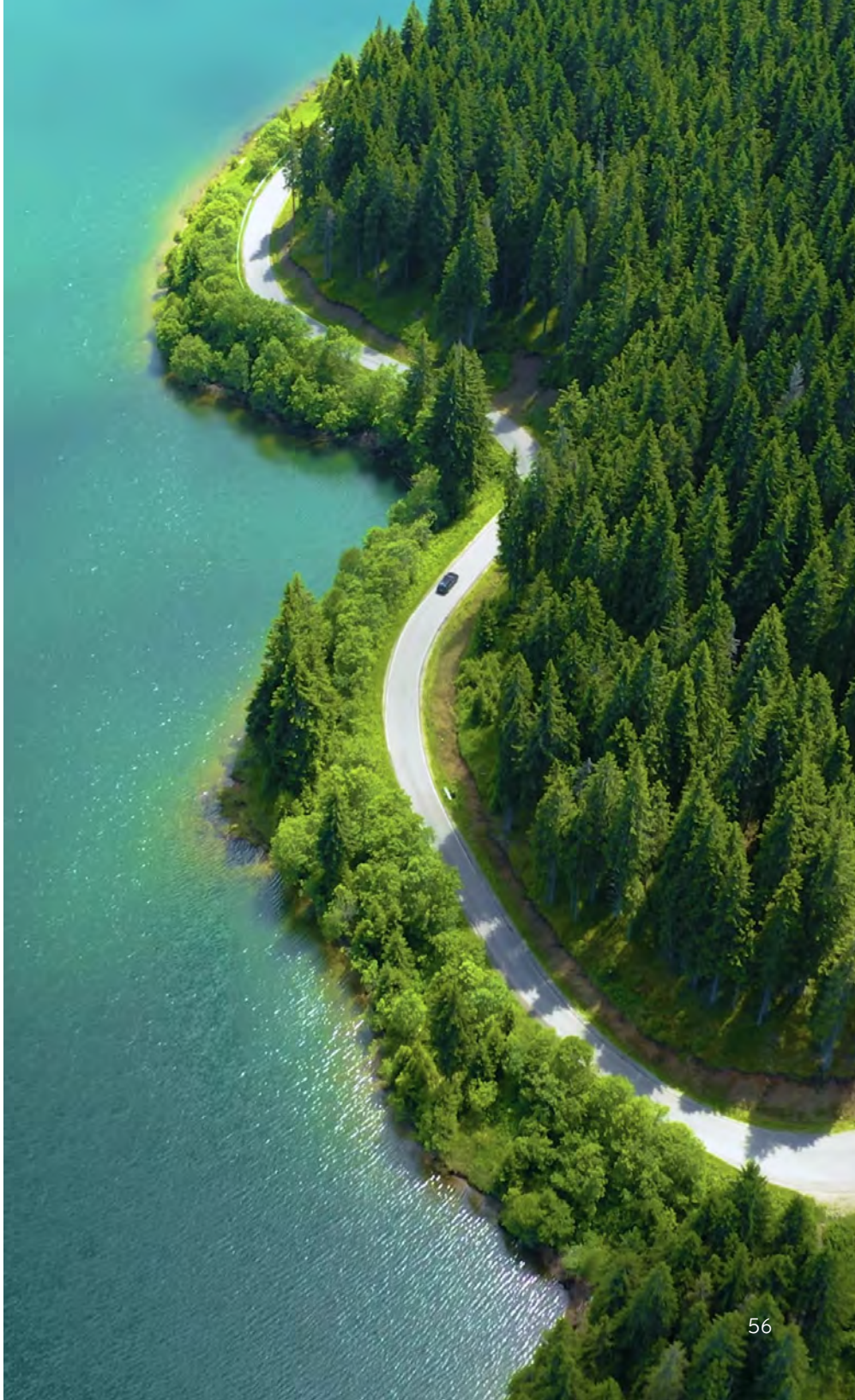
At Calix, we recognise that our actions profoundly impact the environment, society and communities we serve. This motivates us to design operational systems that enable us to meet our own needs without compromising the ability of future generations to meet theirs.

Through purpose-driven innovation and technological development, we are addressing the global need for urgent decarbonisation, and developing solutions for other environmental challenges. As we work to solve global challenges, we are pleased to be making progress towards our approach to sustainability internally. We are committed to embedding the Ten Principles of the United Nations Global Compact on human rights, labour, environment and anti-corruption into our operations.

In FY23, membership of our voluntary Calix Sustainability Team increased from nine to 17, signaling the momentum building within the organisation. Team members span all business lines and functions, bringing together diverse perspectives and expertise to develop innovative and holistic solutions to the Company's sustainability goals. Also in FY23, the Calix Limited Board of Directors (the board) established a new Sustainability Committee.

calix | SUSTAINABLE DEVELOPMENT GOALS

Calix supports the Sustainable Development Goals



Measurable targets and actions

The United Nations Global Compact (UNGC) and Sustainable Development Goals (SDG) ambitions have been beacons for Calix's sustainability journey thus far. In November 2022, Calix reaffirmed its commitment to the UNGC by producing our second Communication on Progress.

As we look to the future, we are translating these ambitions into measurable targets and actions that align with Environment, Social and Governance (ESG) bodies and industry standards. We look forward to outlining our targets and progress in the FY23 Sustainability Report, which is planned for publication in advance of the Company's Annual General Meeting in November 2023.

SDG Ambition Benchmarks	SDG IMPACT			SCOPE		
	Primary	Additional	Timeline	Operations	Products & Services	Value Chain
1. Science-based emission reduction in line with a 1.5°C pathway.	13 CLIMATE ACTION	3, 9, 12, 14, 15	5-15 years	●	●	●
2. Zero incidents of bribery and corruption.	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Cross-cutting	2030	●	●	●
3. Diversity across all levels of management.	10 REDUCED INEQUALITIES	1, 4, 5, 8	2030	●		
4. 100% sustainable material inputs that are renewable, recyclable or reusable.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	6, 9, 11, 13, 14, 15, 17	2030	●	●	

Environment

In FY22, Calix committed to reducing its greenhouse gas emissions in line with the 1.5 °C degree pathway. To honour this commitment, in May 2023, Calix completed its inaugural greenhouse gas assessment under the guidance of Pangolin Associates. The outcome of this assessment will identify emission hotspots in the Company's operations and supply chain, from which Calix will develop an emission reduction roadmap in FY24.

"Working in sustainability at Calix offers a profound opportunity to drive positive change and contribute to a more sustainable future. For me, the most enjoyable part of this work is collaborating with a diverse group of passionate and intelligent people to create innovative solutions to global challenges."

Vanessa Mayne
Sustainability Manager

Social

Health, safety and wellbeing

The health and safety of our people continues to be our primary operational focus. In FY23, Calix retained its international ISO45001 Occupational Health and Safety Management System accreditation. We have a strong reporting culture, and encourage our team to report all injuries, incidents, and near-misses. Each incident undergoes investigation, in addition to being reported to the board, to help prevent reoccurrence and ensure continual improvement to Calix's safety management system.

Mental health and wellbeing are important aspects of our strong safety culture. Calix employees and their families are provided with access to an independent Employee Assistance Program (EAP) for anonymous support and counselling. Calix expanded its EAP in FY23 by providing access to two educational courses – Managing Stress and Building Resilience, and Self Care to Prevent Burnout and Fatigue. These courses are designed to equip employees with additional tools to manage stress, promote mental strength and overall, maintain wellbeing.

Also in FY23, Calix formed a Psychosocial Safety Committee to develop a credible system to safeguard the mental health of our team.

Gender diversity

In FY23, Calix recognised gender diversity as a sustainability priority for the Company. A working group was formed to develop a clear plan to translate our ambition to achieve gender balance, at all levels of the organisation including management, into effective actions and outcomes.

Inclusion

Diversity and inclusion are foundational to Calix's culture, part of our core values and essential for driving continued innovation and success. In support of the diverse needs of our current and future workforce, Calix has established two multi-purpose 'quiet spaces' at our key operational site in Bacchus Marsh, Victoria. These spaces are available for all employees, including for the purposes of breast feeding, prayer and privacy.

Human rights, modern slavery and child labour

Calix respects human rights as defined by the UN Guiding Principles on Business and Human Rights and has implemented the Principles in our operational policies and procedures.

We support the elimination of all forms of forced and compulsory labour and the effective abolition of child labour, modern slavery, and human trafficking.

Calix proactively ensures that our innovation and business practices protect and respect fundamental human and labour rights, building on policies introduced in FY22 to help ensure that human rights are strictly upheld throughout our supply chain and operations.

Corporate social responsibility

Calix continued its support for WaterAid, an international not-for-profit determined to make clean water, decent toilets and good hygiene normal for everyone, everywhere within a generation.

Additionally, Calix continued its support for the Ocean Impact Organisation, Australia's first ocean impact ecosystem and startup accelerator for businesses dedicated to transforming ocean health.

Calix was also pleased to renew its sponsorship of the Cobras – the Senior Women's Australian Football League team in Bacchus Marsh, Victoria.

"A focus on health and safety is not simply a consideration, it's part of our culture and permeates every element of our work. We remain vigilant in ensuring our health and safety systems remain effective, as well as maintaining compliance with international standards. It's not about the numbers – day-in and day-out the whole team continually works towards developing a more diligent and transparent safety culture."

Vincent Nguyen
General Manager – Operations

Governance

The Calix Limited Board of Directors (the board) is responsible for the overall operation and stewardship of Calix, including the Company's strategies and financial objectives, monitoring progress against these objectives, and monitoring compliance with regulatory requirements and ethical standards.

In accordance with the Australian Securities Exchange (ASX) Corporate Governance Principals and Recommendations, the Company's policy and charter documents are reviewed and approved annually. The Company's current ASX Appendix 4G has been lodged with the ASX and is also on the Company's website.

In FY23, the board established a new Sustainability Board Committee, in addition to: updating the Board Charter; updating the Code of Conduct Policy; replacing the Remuneration and Nomination Committee with a new People and Culture Committee and charter; and updating charters for the Audit and Risk Committee, and Technology Committee. A copy of each document is available on the Calix website.

A full list of Calix's charters and policies can be found at:

https://calix.global/governance/

In February 2023, Calix announced the appointment of Alison Deans as a Non-Executive Director and the retirement of Non-Executive Director, Dr Jack Hamilton from the board. The board has continued to maintain a proactive approach to board succession and renewal. The goal of this approach is to ensure the size and composition of the board is appropriate to support the continued delivery of Calix's growth strategies, as well as being positioned to meet prevailing best practice governance standards.

The appointment of Alison Deans, as well as the retirement of Dr Jack Hamilton represents the next stage of the board renewal process. Ms Deans' appointment, in addition to further renewal planned for the future, will strengthen the cumulative skills and experience of the Calix board, bolstering its ability to deliver its growth strategies and fulfil the promise of its technologies for industrial decarbonisation and other environmental solutions. Calix thanks Dr Hamilton sincerely for his service, focus, availability and wise counsel.

Anti-corruption

In FY23, Calix received zero reports of bribery or corruption. As noted above, the Company's Code of Conduct was reviewed and updated in May 2023 to promote a culture of transparency and foster ethical business practices.

Calix made no political donations during FY23, in accordance with our Code of Conduct and Anti-Corruption & Anti-Bribery Policy.

FY24 PRIORITIES

Calix's FY24 priorities

In FY24, Calix will continue to focus on accelerating the development and commercialisation of its technology to enable electrification of industrial processing and efficient capture of unavoidable carbon emissions.

Calix will also combine its Water and Biotech businesses into a new Magnesia line of business to increase the scale and reach of Calix's magnesium-based products. The Magnesia business will focus on delivering revenue growth for the Group through increased sales of water treatment products in the US and Asia. In addition, it will develop and commercialise applications for agriculture, marine and antimicrobial resistance, and sustainable processing of magnesium metal.

Finally, Calix will continue to develop and commercialise a more sustainable and cost-effective production process for high-performance lithium-ion battery materials.

Commercialisation Priorities

Priorities to accelerate the commercialisation of key applications of Calix's technology include:

- Completing permitting and civil works for Leilac-2.
- Progressing projects through the Leilac project pipeline.
- Commencing the construction of the demonstration plant at Pilbara Minerals' Pilgangoora project.
- Completing a Front-End Engineering Design (FEED) study for the ZESTY demonstration plant.
- Completing a pre-FEED study for Alumina.
- Including Calix's battery module in a consumer product format.
- Completing a FEED study for a cathode production demonstration facility.

R&D Priorities

Priorities to progress the research and development of key applications of Calix's technology include:

- Expanding ZESTY's ore testing program.
- Completing the Basis of Design for the green methanol consortia project.
- Developing a commercial format cell with a new Calix electrode chemistry.
- Continuing to develop and commercialise Calix's core technology for applications in agriculture, marine and antimicrobial resistance.
- Completing a Basis of Design for a magnesium metal plant.

Calix's diverse FY24 priorities leverage our core platform technology, align with the Company's purpose and values, present opportunities to create shared value and economic growth, and deliver sustainable competitive advantages. Collectively, they will help to create value for industry, our shareholders and the planet, as we strive to solve some of humanity's greatest global challenges.

Directors' Report

The directors present their report on Calix Limited and its controlled entities ("the Group" or "Calix") consisting of Calix Limited ("the Company") and entities under its control as of, or during the year ended, 30 June 2023.

DIRECTORS

The following persons were directors of the Company during the whole of the year ended 30 June 2023 and up to the date of the report, unless otherwise stated:

- Peter Turnbull, AM
- Alison Deans (appointed 1 March 2023)
- Helen Fisher
- Dr Jack Hamilton (retired 8 March 2023)
- Dr Phil Hodgson
- Dr Mark Sceats

PRINCIPAL ACTIVITIES

Calix is an environmental technology company solving global challenges in industrial decarbonisation and sustainability, including CO_2 mitigation, sustainable minerals processing, advanced batteries, biotechnology and water treatment. Calix's patented core platform technology delivers efficient indirect heating of raw materials to enable electrification of industries, capture of unavoidable emissions, and green industrial processing solutions. Its flash heating approach can also produce nano-porous materials with enhanced chemical and/or bioactivity. Leveraging its core platform technology and a global network of research and development collaborations, Calix is developing multiple environmental businesses that deliver positive global impact.

The core platform technology– the Calix Flash Calciner ("CFC") – is a reinvention of the kiln process that has three core benefits:

1. **Enabling electrification and green industrial processing**

   Calix's patented core platform technology is designed to help mineral and chemical processing enter the electric age. Its indirect heating approach is compatible with renewable sources of energy and alternative fuels. Separating the heat source from the chemical reaction may also enable the most efficient use of green hydrogen in place of conventional, carbon intensive reducing agents.

   Additionally, Calix is developing refining solutions that enhance recovery of ore and create near zero-waste products. Renewably powered at-mine processing has the potential to enable value creation and capture through refined, low-carbon mineral products.

2. **Enabling efficient capture of unavoidable emissions**

   For industries such as cement and lime, a majority of their CO_2 emissions are process emissions, produced as a direct and unavoidable result of the decomposition of limestone to lime. With no additional chemicals or processes, Calix's technology is being developed to efficiently separate process CO_2 for use or storage to deliver low-cost abatement of unavoidable emissions.

3. **Production of highly active materials**

   Calix's flash heating approach can produce nano-porous materials with enhanced chemical and/or bioactivity. These highly active materials can be made into safe, sustainable and effective products for water and wastewater treatment, agriculture, marine and antimicrobial resistance, and are also being developed for advanced lithium-ion batteries.

The Group has operations, customers and distribution partners across Australia, New Zealand, Asia, Europe and the United States of America ("US"). Its activities in the 2023 Financial Year ("FY23") were focused across five business segments, being: Leilac (a CO_2 mitigation business), Sustainable Processing, Advanced Batteries, Biotech and Water. These "lines of business" are supported by Research & Development ("R&D"), engineering, operations, marketing, and finance and administration teams.

calix Solving global challenges | Because Mars is for quitters

Our values	Sense of urgency	Positive impact	Inclusive	Resolute	Innovation	Teamwork

CALIX'S CORE PLATFORM TECHNOLOGY	GLOBAL CHALLENGE	SOLUTION	INDUSTRY
Leilac	Industrial decarbonisation	Capture of process CO_2 emissions Electrification and alternative fuels	Cement Lime Direct Air Capture
Sustainable Processing	Industrial decarbonisation	Electrification & renewable power Efficient use of hydrogen Low waste & value-added mineral products	Lithium & Critical Minerals Iron & Steel Alumina
Advanced Batteries	Making better batteries	Sustainable and low-cost production High performance cathode materials	Lithium-ion batteries
Biotech	Sustainable environmental solutions	Bioactive materials Non-lethal suppression with low resistance potential	Agriculture Marine Antimicrobial Resistance
Water	Sustainable environmental solutions	Safe, effective water treatment pH control Sustainable alternative to existing products	Water Wastewater Aquaculture

Calix's Technology function manages a pipeline of projects that leverage the core platform technology, with each project designed to:

- address a specific global environmental challenge consistent with our purpose and company ethos;
- present opportunities for economic growth; and
- deliver sustainable competitive advantage.

The key current development areas are:

- demonstration and commercialisation of the technology for the cement and lime industries;
- application of the technology in sustainable processing, including green iron and steel, and for critical minerals, such as lithium; and
- application of the technology for advanced battery and bioactive materials.

These activities are supported by the Group's R&D facilities in Australia, as well as engineering groups in Australia and Europe.

Our business activities are underpinned by:

- a commercial-scale operations facility at Bacchus Marsh in Victoria, with a name-plate capacity of 25,000 tonnes per year of raw (magnesium oxide) product;
- a raw material (magnesium carbonate) mine near Leigh Creek in South Australia;
- a pilot demonstration facility for CO_2 capture from lime and cement ("Leilac-1" facility) in Lixhe, Belgium;
- an electric calciner for sustainable processing development and the production of advanced materials, including battery materials ("BATMn" facility) at Bacchus Marsh; and
- four manufacturing facilities in the US to produce water treatment products to serve North American customers, with a fifth undergoing commissioning and a sixth under construction.

OPERATING RESULTS

In FY23, total revenue and other income increased by 42% to $29.6m (FY22: $20.8m), including a sales gross margin of 33% (FY22: 28%), with continued revenue and margin contribution in the US and Asia Pacific from the Water line of business. A strong balance sheet and cash position of $74.5m (FY22: $25.0m) is underpinned by a $60.0m institutional placement in October 2022 and a $21.6m Share Purchase Plan completed in November 2022.

The Company undertook investment of $31.7m (FY22: $19.7m) in capability and capacity building to commercialise Calix's platform technology, particularly in the CO_2 Mitigation and Sustainable Processing lines of business. This includes investment in additional research, development and engineering, which accounted for 77% of the total increase in operational expenditure. Calix concluded FY23 with 129 full-time employees (FY22: 72 full-time employees), which includes 37 new engineers and scientists to support R&D, as well as new employees to support customer projects.

FINANCIAL POSITION

The Group held $74.5m in cash and cash equivalents at 30 June 2023 (30 June 2022: $25.0m) and had a surplus of $68.2m of total current assets over total current liabilities (30 June 2022: $16.5m). Calix's strong balance sheet, including its cash position and minimal debt, provides the capacity to simultaneously pursue commercialisation opportunities in large addressable markets across the Company's multiple lines of business.

MARKET CONDITIONS

Despite a challenging global economic environment – with volatile markets continuing to deal with the persistent effects of inflation, supply chain constraints and the war in Ukraine – Environmental, Social and Governance ("ESG") tailwinds continue to gather strength. Commitment to and investment in solutions that align with ESG goals continues to grow year-on-year as governments, industries and investors look to achieve their decarbonisation goals and meet their net-zero commitments.

In FY23, various policies to drive decarbonisation were announced around the world, including:

- a Carbon Border Adjustment Mechanism and Net-Zero Industry Act in Europe;
- the Inflation Reduction Act and Regional Direct Air Capture hubs in the USA; and
- Safeguard Mechanism, Powering the Regions Fund, National Reconstruction Fund, and Critical Minerals Strategy in Australia.

These policies recognise the need for urgent, affordable and scalable solutions that balance social, economic and environmental sustainability to solve some of the greatest global challenges of our time.

REVIEW OF OPERATIONS

As planned, the Group invested in people, capital and services in FY23, helping to fuel activity in R&D and commercialisation. The investment costs in people and technology development – specifically R&D and engineering capability – were partly offset with $10.7m in FY23 in grants and tax rebates from governments in the various jurisdictions in which Calix operates.

Operational highlights since 1 July 2022, include:

Leilac

- **First licence agreement signed for cement**: Leilac, Calix's 93% owned subsidiary focused on the decarbonisation of cement and lime, signed a first-of-a-kind perpetual global licence agreement with Heidelberg Materials (FWB: HEI).
- **The Leilac-2 project progressed:** the Leilac-2 project located at Heidelberg Materials' Hanover site commenced procurement of long-lead items and site works (demolition of old existing infrastructure) following some permitting delays. This will likely push commissioning into 2025. Leilac-2 is targeting 100,000 tonnes per annum of CO_2 separation and aims to establish a modular, retrofittable format of the Leilac technology for cement applications.
- **Leilac executed non-binding Memorandum of Understanding ("MOU") outlining the key terms for a global licence agreement with Heirloom for Direct Air Capture**: Leilac announced a new application of its core kiln technology for Direct Air Capture ("DAC") of atmospheric CO_2, and a non-binding MOU for a global licence and collaboration agreement with Heirloom.
- **Leilac and CEMEX announced new projects**: Three full-scale decarbonisation projects were announced by Leilac and CEMEX S.A.B. de C.V. (NYSE: CX) in Germany, Poland and the US. Progress was also made towards a global licence agreement with CEMEX.
- **Calix was announced as a partner in methanol project for sustainable fuels from CO_2**: With funding from the German-Australian Hydrogen Innovation and Technology Incubator ("HyGATE") initiative, the Solar Methanol Project aims to use renewable energy, green hydrogen and CO_2 captured by the Leilac technology to produce sustainable fuels.

Sustainable Processing

- **Joint venture executed with Pilbara Minerals (ASX: PLS)**: Supported by a grant of $20m under the Australian Government's Modern Manufacturing Initiative ("MMI"), Calix's joint venture with Pilbara Minerals aims to develop novel mid-stream lithium processing to produce low carbon, low waste, and high value concentrated lithium salt.
- **Sustainable lithium demonstration plant progressed towards construction**: Detailed Front-End Engineering and Design ("FEED") of a mid-stream spodumene processing demonstration plant, developed in a joint venture with Pilbara Minerals, progressed towards a Financial Investment Decision ("FID").
- **Calix awarded funding for Zero Emissions Steel Technology ("ZESTY")**: A $0.947m Australian Renewable Energy Agency ("ARENA") grant was awarded to Calix to help fund a Basis of Design ("BOD") and FEED study for a renewably powered 30,000 tonnes per annum ("tpa") demonstration plant.
- **First stage ZESTY pilot-scale tests**: Pilot-scale metallisation results show ZESTY can produce H-DRI products from multiple ore samples. The results will inform and progress design of a ZESTY demonstration plant.

Advanced Batteries

- **Commercial-prototype LMO battery cells produced:** Calix produced 4Ah commercial-prototype battery cells using Calix Lithium Manganese Oxide ("LMO") cathode powder, in collaboration with UK production partner, AMTE Power.
- **Expanded to new battery chemistries:** Calix expanded its battery materials capability to new chemistries, including those favoured by the electric vehicle segment of the battery market.

Biotech

- **Calix appointed as a Tier 1 partner in Australia's Cooperative Research Centre Solving Antimicrobial Resistance in Agribusiness, Food, and Environments ("CRC SAAFE"):** As a Tier-1 partner in the CRC SAAFE, Calix's materials will be used to investigate antimicrobial resistance ("AMR") solutions. A first project focused on AMR in intensive livestock commenced.

Water

- **Continued product development and revenue growth:** the development of a new product, ALKA-Mag+ helped to secure new business and grow revenue within existing hydration plant regions in the Pacific Northwest and Upper Midwest of the USA.
- **New hydration plants progressed:** New hydration plants in Ripon, Wisconsin, and Lufkin, Texas, were advanced. The Lufkin plant is undergoing commissioning, and the Ripon plant is under construction.

Leilac

CO_2 Mitigation

Leilac's purpose is to accelerate the transition to net zero by providing a compelling decarbonisation solution for global cement and lime.

Cement and lime provide the foundations of our societies and economies. They are also amongst the largest industrial contributors to climate change, accounting for approximately 8% of global CO_2 emissions. Leilac's technology enables the capture of unavoidable process CO_2 emissions from cement and lime production, without additional chemicals or processes. It is being designed to be scalable, retrofittable, energy agnostic and electrification ready to provide flexible and economical pathways to carbon neutral cement and lime. Leilac's technology is also being developed to deliver zero emissions lime for capture of emissions from other hard-to-abate sectors, as well as Direct Air Capture of CO_2 from the atmosphere.

Government policies and industry commitments continue to drive industrial decarbonisation across the globe. In Europe, the emissions trading scheme reached over €100 per tonne of CO_2, up from less than €20 only three years ago. A Carbon Border Adjustment Mechanism was introduced, placing a carbon tariff on imported carbon-intensive products, such as cement. As part of the Green Deal Industrial Plan, the EU also introduced the Net-Zero Industry Act. This Act identifies carbon capture and storage as one of eight strategic net-zero technologies and includes a target to develop 50 million tonnes of annual CO_2 storage capacity in the EU by 2030. In the United States, the Inflation Reduction Act was passed. It included an increased incentive of US$85 per tonne to capture and permanently store industrial CO_2.

Leilac signed its first global licence agreement in October 2022. In an industry first, Leilac's royalty fee will be based on a percentage of the value of CO_2 captured by its technology. The perpetual agreement applies to any Heidelberg Materials facility where the Leilac technology is installed. The Leilac-2 Project at Heidelberg Materials' Hanover site commenced procurement of long-lead items and site works (demolition of old existing infrastructure) following some permitting delays. This will likely push commissioning into 2025. Leilac-2 is targeting 100,000 tonnes per annum of CO_2 separation and aims to establish a modular, retrofittable format of the Leilac technology for cement applications. Leilac's pipeline of projects continued to grow, including the announced three projects with Cemex, and a zero-emissions lime project with Tarmac which passed the due diligence phase of the UK Government's Industrial Carbon Capture funding scheme. In FY23, Leilac also announced a partnership with a DAC company, Heirloom. The partnership aims to integrate Leilac's electric kiln technology into Heirloom's DAC process for removal of atmospheric CO_2. A signed MoU outlines the key terms for a global licence and collaboration agreement.

Sustainable Processing

Calix's patented core platform technology aims to help mineral and chemical processing enter the electric age. An indirect radiative heating approach separates the heat source from the chemical reaction and removes the need for combustion. Compatible with renewable sources of energy and grid-load balancing applications, Calix's technology is also being designed to enable efficient use of green hydrogen in place of conventional, carbon-intensive reductants, enhance recovery of ore, and create near zero-waste products. At-mine processing has the potential to rationalise supply chains, reduce the total CO_2 footprint of minerals, and add value to mineral exports.

Critical minerals were the source of significant geopolitical interest in FY23, as governments sought to develop reliable supply chains for minerals of strategic importance in a decarbonising global economy. The US-Australia Climate, Critical Minerals and Clean Energy Transformation Compact was announced. It aims to fast-track critical mineral supply chains and provide access to US capital for Australian companies. In Europe, the Critical Raw Materials Act also aims to diversify and enhance the resilience of EU critical raw material supply chains. In Australia, the $15 billion National Reconstruction Fund includes up to $3 billion for renewables and low emission technologies and $1 billion for value-adding in resources. An additional $400m was announced for Critical Inputs for Clean Energy Industries, such as steel, cement and lime, and alumina.

FY23 saw considerable focus on the development of Calix's ZESTY. A $947,035 grant from the Australian Government's ARENA is supporting the design of a renewably powered direct hydrogen reduced iron ("H-DRI") demonstration plant. Initial pilot-scale testing showed metallisation of a range of iron ore types with ZESTY.

In November 2022, Calix executed a joint venture agreement with Pilbara Minerals to develop a novel mid-stream lithium processing technology to produce low carbon, low waste, and high value lithium salt. In FY23, the joint venture progressed detailed engineering and design of a demonstration plant that aims to utilise Calix's electric calcination technology at Pilbara Minerals' Pilgangoora Project. The proposed demonstration plant is supported by a $20m grant under the Australian Government's MMI. A FID for the demonstration plant was approved by the boards of Calix and Pilbara Minerals on 2 August 2023.

In FY23, Calix also continued to explore and develop further applications of its sustainable processing technology, including to alumina and other critical minerals.

Advanced Batteries

Calix is developing a renewably powered, energy efficient and low-cost chemistry-agnostic platform technology targeting production of high-performance nanostructured battery materials.

Demand for lithium-ion battery materials is growing, driven by a transition towards electric vehicles and renewably powered energy grids supported by battery storage. By 2030, global battery capacity is expected to grow more than five-fold to 5,500 GWh, reaching an estimated total addressable market of over US$400b.[1] Government policies, such as the US Government's US$369b Inflation Reduction Act and the European Critical Minerals Act, are driving efforts to build sovereign capabilities and supply chains. This has increased demand for localised, high quality and sustainable battery material production.

In FY23, the Advanced Batteries business progressed the development of commercial-prototype battery cells, in collaboration with UK production partner, AMTE Power, and prototype single layer pouch cells. Calix also continued its collaboration with Deakin University and expanded its cathode production portfolio to include additional battery chemistries. Early lab-scale results showed successful production of Lithium Iron Phosphate ("LFP") and Lithium Nickel Manganese Oxide ("LNMO") cathode materials. The production of new battery chemistries aims to demonstrate the potential of Calix's production methods as a chemistry-agnostic platform technology.

[1] Global lithium-ion battery capacity to rise five-fold by 2030

Biotech

Calix's Biotech business continued to develop magnesium oxide materials with high bioactivity for three target applications:

Agriculture

Reducing dependence on lethal chemical pesticides is an important challenge for the agriculture industry. Calix BOOSTER-Mag is a safe, low-cost, and environmentally sustainable alternative insecticide now registered in Australia. BOOSTER-Mag provides non-lethal pest suppression that aims to enable reduced use of conventional insecticide without compromising yield or yield quality. Non-conventional pesticides are predicted to grow at 15% per annum for the next 10 years[2], driven in part by the prohibition of many conventional pesticides. In FY23, in collaboration with an EU agricultural cooperative, a second season of extended field trials commenced in the Netherlands, following the banning of the fungicide Mancozeb in the EU. Additional field trials also commenced to extend the label of Calix's current BOOSTER-Mag registration.

Marine

Marine biofouling increases hull surface roughness, fuel consumption and greenhouse gas emissions. Conventional anti-foul paints and coatings are toxic and have well documented negative effects on the marine environment. In FY23, the International Maritime Organisation adopted a new emissions reduction strategy[3] and indicated it will strengthen biofouling measures[4]. Calix is developing non-toxic bioactive additives that aim to deliver more sustainable marine-fouling and corrosion control through a material reduction in the use of toxic biocides. In FY23, Calix completed phase two static tests with leading global coatings firms. Dynamic tests and coatings formulation work commenced in different marine antifouling sites across North America, Australia, New Zealand and Asia.

Antimicrobial Resistance

Following many years of overuse of conventional pesticides, biocides and antibiotics, AMR is projected to cost the global economy US$100 trillion and cause 10 million deaths per year by 2050.[5] The antimicrobial properties of Calix's bioactive materials, with low resistance development potential, may offer a sustainable alternative to conventional actives. In FY23, Calix became a Tier 1 partner in Australia's CRC SAAFE. A first project with CRC SAAFE has commenced, studying the application of Calix bioactive materials in improving health in intensive livestock.

Water

Water and wastewater management is a challenge that can threaten vital waterways, impacting health and the environment. Effective management of water and wastewater helps to protect freshwater systems, oceans and human health by preventing detrimental pathogens, nutrients and other types of pollution from entering the environment. Calix's products aim to provide safe, effective, economical and sustainable solutions for the treatment of water and wastewater.

In North America, regulatory tailwinds continued to drive growth in the magnesium hydroxide market. For wastewater, increased regulation regarding nitrogen removal created demand for solutions that boost alkalinity and maintain effective microorganism activity. For the potable water market, strengthened regulation on residual lead and copper required alternative pH control solutions to minimise the corrosivity of water within the distribution system.

In FY23, Calix's Water business identified and secured new sales within its existing hydration plant regions in the Pacific Northwest and Upper Midwest of the United States. The US Water business recorded revenue growth for the full year of 14.2%, while strong margins led to a gross profit increase of 28.6%. Revenue growth accelerated during the year, with growth in the second half of FY23 up 28% compared with the same period in FY22. Throughout the financial year, the construction of two new hydration plants in Ripon, Wisconsin, and Lufkin, Texas, progressed. The Lufkin plant is undergoing commissioning, and the Ripon plant is under construction.

FUTURE DEVELOPMENT, PROSPECTS AND BUSINESS STRATEGIES

The Group will continue to pursue the following strategies and activities as it works towards achieving its 2024 Financial Year ("FY24") priorities.

In FY24, Calix will continue to focus on accelerating the development and commercialisation of its technologies for industrial decarbonisation, including electrification of industrial processing and capture of process CO_2 emissions. Priorities include the progression of projects through engineering milestones, including the commencement of civil works for Leilac-2 and construction of the mid-stream lithium-phosphate demonstration plant at Pilbara Minerals' Pilgangoora project. Calix will also continue to develop its core platform technology for application to alumina refining and the production of cathode active materials for lithium-ion batteries.

In FY24, Calix plans to combine its Water and Biotech businesses into a new Magnesia line of business. This change is designed to increase the scale and reach of Calix's magnesium-based products. The Magnesia business will focus on delivering revenue growth for the Group through increased sales of water treatment products in the US and Asia. In addition, it will focus on the development and commercialisation of applications for agriculture, marine and antimicrobial resistance, and sustainable processing of magnesium metal.

Calix continues its strategy to leverage the Group's core platform technology for applications it believes can create shared value and economic growth, and can support sustainable competitive advantages. Calix will pursue low touch business models, including the conversion of existing relationships to licence agreements to assist the Company achieve its objectives.

GOING CONCERN

The financial report has been prepared on a going concern basis.

SIGNIFICANT CHANGES IN THE STATE OF AFFAIRS

Other than the milestones set out in the review of operations and the capital raise noted above, there were no significant changes in the state of affairs of the Group during the year.

DIVIDENDS

No dividends were paid or were payable during the year (2023: $NIL).

AFTER BALANCE DATE EVENTS

On 2 August, 2023, the Group announced that the joint venture project with Pilbara Minerals Limited (ASX:PLS) to construct a ~3000 tonne per annum lithium phosphate production facility had passed its FID. The project involves the commitment by the Group of A$17.5m in capital to construct the facility at Pilbara Mineral's Pilgangoora mine site in Western Australia.

No other matters or circumstances have arisen since the end of the financial year which significantly affected, or may significantly affect, the operations of the Group, the results of those operations, or the state of affairs of the Group in future years.

[2] Insightace analytic
[3] 2023 IMO Strategy on Reduction of GHG Emissions from Ships
[4] Draft revised Biofouling Guidelines approved at PPR 10th session
[5] United Nations Environment Programme (2022). Environmental Dimensions of Antimicrobial Resistance: Summary for Policymakers.

Information on directors

Peter J Turnbull AM - BCom, LLB, FGIA (Life), FCG, FAICD (Non-Executive Chair)

Experience
Peter Turnbull is an experienced chair and professional non-executive director of publicly listed unlisted and technology companies in the scale up phase. Sector experience spans technology commercialisation, artificial intelligence, oil and gas, mining and industrial manufacturing.

Peter has degrees in law and commerce (University of Melbourne) and over 25 years successful senior executive and corporate legal experience with some of Australia's largest listed and unlisted public companies, including Newcrest Mining, BTR Nylex and Energex. Peter also has significant corporate regulatory and government policy experience gained through working with the Australian Securities & Investments Commission and the Hong Kong Securities & Futures Commission.

Peter is a member of the ASIC Corporate Governance Consultative Panel and is a regular speaker and writer on global governance issues. In June 2020, Peter was made a Member of the Order of Australia for services to business and corporate governance institutes.

Current positions and directorships include:
• Chair, Calix Limited (ASX: CXL)
• Non-Executive Director, Karoon Energy Ltd (ASX: KAR)
• Chair, Auxita Pty Ltd

Peter is the Immediate Past President of the global Chartered Governance Institute, a former President, Life Member and Fellow of Governance Institute of Australia and a Fellow of the Australian Institute of Company Directors.

Special responsibilities
Chair of the Board and Chair of the People, Culture & Nominations Committee, member of the Audit & Risk Management Committee and Sustainability Committee.

Interest in shares and options
1,133,789 ordinary shares in Calix Limited
Nil options or rights over ordinary shares in Calix Limited

Helen Fisher – BSc, LLB (Hons), LLM, MCom (Non-Executive Director)

Experience
Helen Fisher is Managing Director and CEO of Bio Capital Impact Fund (BCIF). Prior to establishing BCIF, Helen was a partner of Deloitte for over 10 years and led Deloitte's Life Sciences industry practice in Australia for 5 years, having had many years' experience in the Life Sciences and Health Care industry. She also specialised in Financial Services, servicing some of the largest Australian banks and funds and has been involved in setting up a number of large international funds, as well as advised on a number of significant M&A deals. Helen provided strategic advice to publicly listed and large multinational companies and has extensive experience with capital raisings, licensing deals, demergers, implementing offshore expansions, IP management and location, and supply chain management.

Helen is currently a Non-Executive Director and Chair of the Audit and Risk Management Committee of Paradigm Biopharmaceuticals Limited (ASX:PAR). She is the Chair of the Victorian branch committee of AusBiotech. Helen's previous directorships include Sienna Cancer Diagnostics Limited and BARD1 Life Sciences Ltd.

Helen has Bachelor degrees in Law (with Honours) and Science from the University of Melbourne, a Masters degree in Laws (specialising in International Taxation) from the University of Melbourne and a Masters degree in Commerce from the University of NSW.

Special responsibilities
Chair of the Audit & Risk Management Committee and member of the People, Culture & Nominations Committee and the Sustainability Committee.

Interest in shares and options
16,120 ordinary shares in Calix Limited
Nil options or rights over ordinary shares in Calix Limited

Alison Deans – MA (Physics) MBA (Non-Executive Director) – Appointed 1 March 2023

Experience
Alison Deans is Chair of Cochlear Limited (ASX: COH), Non-Executive Director at Ramsay Health Care Limited (ASX: RHC), and Non-Executive Director at Deputy Group Pty Ltd. Alison is also a member of the Investment Committee at Main Sequence Ventures (CSIRO's innovation fund) and a Member of the AICD Corporate Governance Committee. Alison's previous directorships include Westpac Banking Corporation, Insurance Australia Group Limited and Social Ventures Australia.

In her executive career, Alison was previously the CEO of eBay Australia and New Zealand, CEO of eCorp Limited (a publicly listed portfolio of digital businesses), CEO of Hoyts Cinemas, CEO of netus Pty Ltd (a technology investment company acquired by Fairfax), and a consultant with McKinsey & Company. Alison holds a Master of Business Administration from the Stanford Graduate School of Business and a Master of Arts (Physics) from Cambridge University.

Special responsibilities
Member of the Audit & Risk Management Committee, the People, Culture & Nominations Committee, and the Sustainability Committee.

Interest in shares and options
50,000 ordinary shares in Calix Limited
Nil options or rights over ordinary shares in Calix Limited

Phil Hodgson – BE (Hons) (Chem), PhD (Managing Director & CEO)

Experience
Phil has a technical and commercial background from a successful career with Shell, where for over 14 years he developed significant depth of experience across all key sectors of the downstream oil industry, including refining and supply, marketing and sales, pricing strategy, risk management, corporate strategy, and mergers and acquisitions.

From 2007 to 2013, Phil ran his own consultancy, providing project development, commercial, M&A, and management expertise to several sectors, including LNG, biofuel, clean coal, geothermal energy, building products, logistics and fast-moving consumer goods.

Phil joined Calix as CEO in 2013 and was appointed a Director in 2014. He holds a Bachelor of Chemical Engineering with Honours from the University of Sydney and a PhD in Chemical Engineering from the University of NSW.

Special responsibilities
Managing Director & CEO, member of the Technology Committee,

Interest in shares and options
4,114,362 ordinary shares in Calix Limited
1,146,312 options over ordinary shares in Calix Limited

Mark Sceats – BSc (Hons 1st Class), PhD (Executive Director & Chief Scientist)

Experience
Mark Sceats is a qualified physical chemist with 45 years' experience. He has degrees in Science (Hons 1st Class) and a PhD (University of Queensland) and was awarded the University Medal.

Mark has previously worked at the James Franck Institute at the University of Chicago, and a Research Associate, and as an Assistant Professor of the University of Rochester NY, USA, where he was awarded the Alfred P Sloan Fellowship for his work. Later he was employed by the University of Sydney as a Reader in the School of Chemistry for his research work on chemical reaction kinetics and led the Australian Photonics CRC from 1991-2004. Mark has published more than 165 academic papers in physical chemistry and is an inventor of 55 patented inventions.

Mark was awarded the M.A. Sargent Medal of the Institute of Engineers Australia for his contributions to optical communications and the Centenary Medal of the Commonwealth of Australia for his contributions to Australian society. He is a Fellow of the Australian Academy of Technological Sciences and Engineering, a Fellow of the Royal Australian Chemical Institute, and a Companion of the Institute of Engineers Australia.

Mark founded Calix in 2005.

Special responsibilities
Member of the Technology Committee.

Interest in shares and options
7,657,765 ordinary shares in Calix Limited
671,853 options over ordinary shares in Calix Limited

COMPANY SECRETARY

Darren Charles, B Com FCPA, is the Company Secretary and is also the Chief Financial Officer of Calix Limited.

DIRECTORS AND COMMITTEE MEETINGS

The number of meetings of the Company's Board of directors and each Board committee held during the year ended 30 June 2023, and the number of meetings attended by each director were:

Director name	Full Board		Committee meetings					
			ARMC		PCN		Tech	
	Attended	Held	Attended	Held	Attended	Held	Attended	Held
Peter Turnbull, AM	11	11	3	3	2	2	*	*
Alison Deans**	3	3	-	-	-	-	*	*
Helen Fisher	11	11	3	3	2	2	*	*
Jack Hamilton***	8	8	3	3	2	2	1	1
Phil Hodgson	11	11	*	*	*	*	1	1
Mark Sceats	10	11	*	*	*	*	1	1

* = Not a member of the relevant committee
** = Joined the Board on 1 March 2023
*** = Retired from the Board on 8 March 2023
ARMC = Audit & Risk Management committee
PCN = People, Culture & Nominations committee
TECH = Technology committee

The Board established a Sustainability committee on 10 May 2023 but it had not held its first meeting prior to 30 June 2023. Peter Turnbull, AM, Alison Deans and Helen Fisher are members of the Sustainability Committee.

ENVIRONMENTAL REGULATION

The Group's operations are subject to local, state and federal environmental legislation and regulations in both the testing and operational areas. The Board of directors is responsible for the regular monitoring of environmental exposure and compliance with environmental regulations and is not aware of any breaches of these regulations during the year. The Group is committed to achieving a high standard of environmental performance.

INDEMNIFICATION AND INSURANCE OF OFFICERS

During the financial year, the Company paid a premium to insure the directors, officers and senior managers against certain liabilities that may be incurred whilst they perform their duties for the Company. This may include liabilities and costs associated with defending civil or criminal proceedings brought against the individuals in their capacity as officers of the entities in the Group.

OPTIONS, WARRANTS AND RIGHTS

At the date of this report, there were no unissued ordinary shares of the Company under option, no warrants on issue and 5,778,486 share options on issue. Refer to Note 19 of the financial statements for further details of the share options outstanding at balance date.

The details of options, warrants and rights issued to KMP as remuneration are set out in the Remuneration Report.

PROCEEDINGS ON BEHALF OF COMPANY

No person has applied to the Court under section 237 of the *Corporations Act 2001* for leave to bring proceedings on behalf of the Group, or intervene in any proceedings to which the Group is a party, for the purpose of taking responsibility on behalf of the Group for all or any part of those proceedings.

AUDITOR

BDO Audit Pty Ltd continues in office in accordance with section 327 of the *Corporations Act 2001.*

NON-AUDIT SERVICES

The Group may decide to employ the auditor on assignments additional to their statutory audit duties where the auditor's expertise and experience with the Company and/or Group are important.

Amounts paid or payable to the auditors for non-audit services provided during the year are as follows:

Tax consulting services $29,348 (2022: $18,081).

The Company's Board has considered the position and is satisfied that the provision of the non-audit services is compatible with the general standard of independence for auditors imposed by the *Corporations Act 2001.* Directors are satisfied that the provision of non-audit services by the auditors, as set out above, did not compromise the auditor independence requirements of the *Corporations Act 2001* for the following reasons:

- All non-audit services have been reviewed by the directors to ensure that they do not impair the impartiality and objectivity of the audit; and
- None of the services undermine the general principles relating to auditor independence as set out in *APES 110 Code of Ethics for Professional Accountants (including Independence Standards).*

AUDITOR INDEPENDENCE

A copy of the auditor's independence declaration as required under section 307c of the *Corporations Act 2001* is set out on page 93.

This report is signed in accordance with a resolution of the board of directors.

P J Turnbull AM
Chair
Calix Limited
Sydney, Australia

24 August 2023

Remuneration report

(Audited)

Introduction

This remuneration report sets out the remuneration information for directors of Calix Limited and its controlled entities ("the Group" or "Calix") consisting of Calix Limited ("the Company") and entities under its control, and other Key Management Personnel ("KMP"). For the purposes of this report, KMP of the Group is defined as those persons having authority and responsibility for planning, directing and controlling major activities of the Company and the Group, directly or indirectly, including any director of the Company.

The key objectives of the Group's remuneration policies are to align Calix's directors, KMP and employees, including KMP, with shareholders' interests, while ensuring remuneration structures are fair and competitive. The policies, including an Employee Incentive Scheme ("EIS"), seek to balance incentives to achieve annual short-term goals with incentives to create and execute opportunities that build long-term shareholder value. The employee incentive scheme, in particular, is designed to balance these goals by providing employees with 'at risk' rewards for their performance. Subject to performance requirements being met, employees receive awards that vest over a period of six years. Since the inception of the employee incentive scheme in 2018 when the Company was listed on the Australian Securities Exchange ("ASX"), the Company's value has grown significantly.

The directors believe the current remuneration policies are appropriate and effective to attract, retain and motivate the KMP needed to run and manage the Group. The directors' policies for determining the nature and amount of remuneration for directors and KMP of the Group follow:

Non-executive director remuneration

- Non-executive directors' remuneration is approved by the Board of Directors ("the Board") and shareholders. Remuneration is reviewed annually, based on market practice, duties and accountability. Independent external advice is sought when required. The maximum aggregate of fees that can be paid to non-executive directors is subject to approval by shareholders at the Annual General Meeting ("AGM").
- At the AGM of shareholders in 2022, a resolution to increase the non-executive director fee pool was carried. The increase is helping to ensure:
    - Board composition – the Board maintains a proactive and careful process of board renewal to ensure the size and composition of the Board is appropriate to support the continued delivery of the Group's growth strategies.
    - Board size – given Calix's growth trajectory, and the breadth of commercial options and pathways available in the future, it is anticipated that additional directors with the requisite skills and experience to further support the Group's growth strategies will be required.
    - Board fee competitiveness – the increase in the fee pool provides the Board with the ability to appoint and remunerate non-executive directors at a level commensurate with current market rates and, as necessary, enable Calix to attract and retain new directors of the highest calibre.
    - Alignment with peers – the level of non-executive directors' remuneration is reviewed annually to ensure alignment with the market. Benchmarking of ASX companies of a similar size, profitability, and growth and risk profile confirmed that the increased fee pool is in line with similar companies within Calix's broad market sector. The previous fee pool increase was in 2011.

Non-executive directors

The following people were non-executive directors of the Group during the 2023 financial year ("FY23") and, unless otherwise indicated, were classified as non-executive directors for the entire year.

- Peter Turnbull, AM, Independent Chair
- Helen Fisher, Independent Director
- Dr Jack Hamilton, Independent Director (retired 8 March 2023)
- Alison Deans, Independent Director (appointed 1 March 2023)

KMP salary and retirement benefits

- All KMP, including the CEO, receive a base salary, which is based on factors such as experience, skills and competencies. The Board reviews KMP base salary levels annually by reference to the Group's performance, individual performance and comparable information from industry sectors.
- All Australian-based KMP employees also receive a superannuation guarantee contribution, which for FY23 was 10.5% (10.0% for FY22) up to the concessional contributions cap, and do not receive any other retirement benefits.

Employee incentives

- An EIS is applied based upon performance of both the Group and individual Key Performance Indicators ("KPI"). The Board sets yearly KPIs for the Group to drive performance, appropriately balancing current and future value creation, and reflecting the nature and strategy of the Group. The actual performance against KPIs is reviewed regularly and assessed at the end of the financial year by the People and Culture Committee, for the purpose of determining EIS outcomes.
- The EIS is a hybrid share-based scheme that combines both short-term and long-term incentives. It is designed to retain and motivate Calix's employees, building alignment of employees' interests with shareholders' interests to deliver shareholder value, consistent with the nature and strategy of the Group.
- Typically, no cash-based bonuses are provided to management and staff. Cash-based bonuses are only available if there is significant outperformance achieved in Group KPIs, as well as positive earnings before interest, tax, depreciation and amortisation ("EBITDA"), that is, if the Group generates significant cash earnings. The Group has not paid any such cash-bonus since its listing on the ASX in 2018.

Details of the mechanisms by which the EIS operates are further set out in the Remuneration Report below.

KMP remuneration

The following executives of the Group were classified as KMP during FY23 and, unless otherwise indicated, were classified as KMP for the entire year.

Executive Directors

Dr Phil Hodgson, MD & CEO
Dr Mark Sceats, Chief Scientist and Co-founder

Senior Executives

Darren Charles, CFO & Company Secretary
Daniel Rennie, CEO Leilac
Doug Kelley, President of IER
Hinne Temminck Tuinstra, GM, Strategy & Portfolio

Details of the remuneration of the directors and the KMP of the Group are set out in the following tables:

30 June 2023	Short term benefits $	Post-employment benefits $	Equity settled share-based benefits $	Total $
Company directors				
Peter Turnbull, AM	180,547	-	-	180,547
Helen Fisher	115,669	-	-	115,669
Jack Hamilton*	72,237	-	-	72,237
Alison Deans**	35,000	-	-	35,000
Phil Hodgson	494,668	25,292	217,747	737,707
Mark Sceats	354,870	25,292	120,161	500,323
	1,252,991	50,584	337,908	1,641,483
Other KMP of the Group				
Darren Charles	354,870	25,292	120,161	500,323
Daniel Rennie	312,215	79,333	-	391,548
Doug Kelley	376,012	14,319	87,926	478,257
Hinne Temminck Tuinstra	338,406	30,764	85,912	455,082
	1,381,503	149,708	293,999	1,825,210
Total KMP compensation	**2,634,494**	**200,292**	**631,907**	**3,466,693**

* Jack Hamilton retired as a director on 8 March 2023.

** Alison Deans was appointed as a director on 1 March 2023.

30 June 2022	Short term benefits $	Post-employment benefits $	Equity settled share-based benefits $	Total $
Company directors				
Peter Turnbull, AM	111,500	-	-	111,500
Helen Fisher	73,001	-	-	73,001
Jack Hamilton	88,000	-	-	88,000
Lance O'Neill*	18,203	-	-	18,203
Phil Hodgson	468,050	23,568	194,139	685,757
Mark Sceats	335,775	23,568	119,945	479,288
	1,094,529	47,136	314,084	1,455,749
Other KMP of the Group				
Darren Charles	333,875	23,568	113,853	471,296
Daniel Rennie	250,918	63,975	20,265	335,158
Doug Kelley	331,113	12,559	-	343,672
Hinne Temminck Tuinstra	296,284	29,629	12,583	338,496
	1,212,190	129,731	146,701	1,488,622
Total KMP compensation	**2,306,719**	**176,867**	**460,785**	**2,944,371**

* Lance O'Neill retired as a director on 16 November 2021

Additional disclosures relating to KMP

The number of Ordinary Shares in the Company held during the financial year by each director and other KMP of the Group, including their personally related parties, is set out in the following table:

30 June 2023	Balance at the start of the year	Received as part of remuneration	Additions	Disposals or other changes	Balance at 30 June 2023
Company directors					
Peter Turnbull, AM	1,126,713	-	7,076	-	1,133,789
Helen Fisher	9,134	-	7,076	-	16,210
Jack Hamilton*	2,203,614	-	21,228	(2,224,842)*	-*
Alison Deans**	-	-	-	50,000**	50,000**
Phil Hodgson	4,304,231	-	3,538	(193,407)	4,114,362
Mark Sceats	7,983,898	-	3,538	(329,671)	7,657,765
	15,627,590	-	42,456	(2,697,920)	12,972,126
Other KMP of the Group					
Darren Charles	1,118,817	150,000	-	-	1,268,817
Daniel Rennie	76,009	-	-	-	76,009
Doug Kelley	-	-	-	-	-
Hinne Temminck Tuinstra	34,450	-	76,106	-	110,556
	1,229,276	150,000	76,106	-	1,455,382
Total Ordinary Shares	**16,856,866**	**150,000**	**118,562**	**(2,697,920)**	**14,427,508**

*Balance at end of year is nil as Jack Hamilton is no longer a director / KMP.

**Balance at the start of the of the year is nil as Alison Deans became a director during the period but owned shares prior to her appointment.

Minimum shareholding requirements

The Company's Minimum Shareholding Policy for Directors stipulates that all directors of Calix should have and maintain a shareholding in Calix (directly or indirectly) that meets or exceeds the following minimum values, which are calculated using the share price at the time of purchase:

- 25% of the director's year 1 base director fee (after tax) – 1 year after their initial appointment; and
- 50% of the director's year 1 base director fee (after tax) – within 2 years after their initial appointment.

The Minimum Shareholding Policy for Directors is available on the Company's website.

As outlined in the table above, the current shareholding of directors exceeds the minimum requirements stipulated in the minimum shareholding policy.

Loans provided to KMP

Details of loans made to directors of the Company and other KMP of the Group, including close family members and entities related to them, are set out in the following table:

30 June 2023	Balance at the start of the year	Interest paid and payable for the year	Interest not charged	Balance at the end of the year	Highest balance during the year
Loan funds provided					
Phil Hodgson	466,049	6,427	-	-	472,476
Mark Sceats	700,000	22,782	-	-	1,023,111
	1,166,049	29,209	-	-	1,495,587

All KMP loans are repayable within six months of the loan agreement. They are unsecured and accrue a variable interest rate charge, which was 4.19% at its peak in December 2022. No write-downs or allowances for doubtful

receivables have been recognised in relation to any loans made to KMP, all loans have been repaid in full and there are no loans outstanding to KMP as at the date of this report.

Service agreements for executives
The key terms concerning the employment of Phil Hodgson as Managing Director and Chief Executive Officer with Calix are as follows:

- Nature and term of employment: full-time employment
- Termination: if convicted of an offence, becomes bankrupt, breach of contract or commits wilful misconduct
- Notice: six months by either party (or payment in lieu)

The key terms concerning the employment of Mark Sceats as Executive Director and Chief Scientist with Calix are as follows:

- Nature and term of employment: full-time employment
- Termination: if convicted of an offence, becomes bankrupt, breach of contract or commits wilful misconduct
- Notice: three months by either party (or payment in lieu)

For other KMP, the key terms of employment are as follows:

- Nature and term of employment: full-time employment
- Termination: breach of contract or gross misconduct.
- Notice: three months by either party (or payment in lieu)

The Calix Employee Incentive Scheme – a hybrid short and long-term incentive scheme

A core pillar of the Group's approach to its remuneration policies is to ensure that management and staff are strongly aligned with shareholders and that all team members can earn a stake in the Company that they are working diligently to build. Calix's success into the future will be based on its ability to commercialise its intellectual property assets and to continue to innovate and find new ways to apply its capability. To this end, team members need to strike the right balance between achieving annual short-term goals whilst also working towards new opportunities to build shareholder value by leveraging the Calix's technology. Calix's 'at-risk' EIS is designed to balance these objectives, providing rewards for performance in the current year that accrue over the medium to longer term.

Background
On 18 April 2018, at an extraordinary general meeting, the shareholders of Calix approved a new EIS to operate once the Company was listed. The Calix Officers & Employees Incentive Scheme ("EIS") provides for the grant of rights and/or options to eligible officers and employees (as determined by the Board) and is intended to provide competitive, performance-based remuneration supporting retention, incentive and reward, and alignment with shareholders. Non-executive and independent directors are not invited to participate in the EIS.

Key terms of the EIS are published on the ASX and the scheme is summarised below:

Overview of the EIS
The EIS is a hybrid scheme that provides both short-term and long-term incentive to all employees, including KMP – aligning employees' remuneration and interests with shareholders' interests. For KMP and senior executives, each round of the scheme operates over a six-year period, with a maximum option pool approved by the Board in year zero, the first tranche of awards vesting at the end of year one, and the final tranche of awards vesting on the sixth anniversary of the initial option award.

The EIS for KMP and senior executives is delivered by zero priced options. Performance-vesting of the allocated options is subject to a series of three performance gateways assessed in each year of the three-year performance period. At the end of a three-year performance period, options which did not meet annual performance gates are subjected to further performance testing based on criteria for superior Total Shareholder Return ("TSR") performance. All Performance-vested options are then subject to tenure-based vesting over a three-year period.

Details and worked examples of the performance criteria and vesting schedules over the six-year period are provided below.

The first round of the EIS was made available to all Calix employees, including KMP (and excluding non-executive directors), at the end of 2018 with an ability to earn parcels of share-based incentives over the proceeding five-year period to 30 June 2023. The scheme was extended in 2022 with an additional round made available with the ability to earn parcels of share-based incentives over the proceeding five-year period to 30 June 2026. Additional rounds of the scheme will typically be made available every three years.

The Board typically limits the number of shares over which options or rights will be issued under the EIS to 2% of the total number of shares on issue (i.e. undiluted) in any one year. Subject to any limitations that might apply under the *Corporations Act 2001* or limits under ASIC class order relief, there is no limit on the number of rights and/or options that may be issued under the EIS. The actual percentage of rights on issue will fluctuate as a result of changes in staffing levels.

Individual incentives and performance criteria for KMP and Senior Executives
The maximum potential award under the EIS for each executive is based on a percentage of gross salary, with the proportion of total remuneration 'at risk' increasing with executive responsibility. The maximum potential award per year for senior executives is 40% of their gross salary, 50% for the Chief Science Officer and Chief Financial Officer, and 65% for the Chief Executive Officer.

The actual award each year is determined as a percentage of maximum potential award, based on the three performance gateways detailed below (performance vesting). The actual award from each year then vests over the subsequent three-year period with one third of the actual award vesting immediately and one third at the end of each subsequent year (tenure vesting).

In an illustrative example – a senior executive is allocated a maximum possible 90,000 options under the EIS at the start of the scheme, reflecting 120% (40% x 3) of the executive's gross salary. Assuming a salary of $225,000 this results in an allocation of $270,000. Assuming $3 per Calix ordinary share at the commencement of the scheme this results in an allocation of 90,000 zero priced options at the start of the scheme. At the end of each of the first three years of the scheme, the maximum potential award is 30,000 options, with the actual award being subject to three performance gateways (performance vesting). The actual award for each year, then vests subject to tenure, with one third able to vest immediately, and the remaining two thirds vesting in equal tranches over the next two years (tenure vesting).

Performance Gateways
Three Performance Gateways are used to determine performance-vesting in each year and are applied sequentially:

Gateway 1 – SHEQ performance
Gateway 1 is achieving the Company's Safety, Health, Environment, and Quality Action Plan KPIs as agreed with the Board each year. If the Safety Health, Environment, and Quality Action Plan KPIs are not met, then no rights or options can be awarded for performance that year. This Performance Gateway is designed to ensure that Safety, Health and Environmental performance of our team members and Quality of our products and services remain paramount at all times. The Action Plan reflects International Standard ISO45001, against which the Company is audited annually.

Gateway 2 – Share price performance
Gateway 2 assesses absolute share price performance over the year as measured by TSR, as described below. TSR is measured as Calix's share price performance, being the 30-day Volume-Weighted Average Price ("VWAP") over the 15 days preceding, and the 15 days after, June 30 in the prior financial year ("Baseline TSR") as compared with the 30-day VWAP over the 15 days preceding and the 15 days after 30 June in the current financial year ("Measured TSR"). If the Measured TSR for a particular financial year is not higher than the Baseline TSR for that

period of measurement, any options or rights earned under Performance Gateway 3 (as described below) remain unvested. However, such unvested options or rights may vest if at any time before the end of the financial year immediately after the full vesting period, the 30-day VWAP for Calix's shares exceeds the applicable Baseline TSR for those unvested rights. This mechanism is designed to ensure that shorter-term goals or advances do not dominate over more significant, longer-term value creation opportunities, so that KMP continue to balance shorter term outcomes with a longer-term view of outcomes for a multi-year, multi-application value opportunity.

Gateway 3 – Performance against KPIs

Gateway 3 measures Company and executive performance against KPIs agreed each year with the Board. These KPIs reflect the corporate milestone targets set for each line of business, and are communicated to the market in the Company's Remuneration Report, full year and half year financial reports, in addition to the Company's annual report and AGM. Gateway 3 helps to drive achievement of annual performance metrics that balance both short-term and long-term shareholder value creation.

The EIS rights or zero priced options that have passed through all three gateways will be classed as "Performance-vested". These options will then be subject to tenure-based vesting with one third vesting immediately. The other two thirds will then vest in two equal traches at the end of each of the two full financial years following the Performance year, provided the KMP or senior executive remains a full-time employee of the Company.

To continue the illustrative example above:

1. In year 1, a KPI result of 7/10 was achieved, meaning 21,000 options have Performance-vested for the senior executive above. Of these 21,000 options, one third is immediately Tenure-vested, while the remaining 14,000 options vest in equal tranches at one year and two years after the performance year, provided the senior executive is still with the Company.
2. In year 2, a KPI result of 6/10 was achieved, meaning 18,000 options have Performance-vested. Of these 18,000 options, one third is immediately Tenure-vested, while the remaining 12,000 options vest in equal tranches at one year and two years after the performance year, provided the senior executive is still with the Company.
3. In year 3, a KPI result of 9/10 was achieved, meaning 27,000 options have Performance-vested. Of these 27,000 options, one third is immediately Tenure-vested, while the remaining 18,000 options vest in equal tranches at one year and two years after the performance year, provided the senior executive is still with the Company.

The table below outlines this illustrative example:

ILLUSTRATIVE EXAMPLE: VESTING OF OPTIONS

A maximum total of 90,000 options are allocated to a senior executive	Vesting of each tranche of options under the initial allocation of a 90,000 option pool for a senior executive				
	BEGINNING YEAR 1	**END OF YEAR 1**	**END OF YEAR 2**	**END OF YEAR 3**	**END OF YEAR 4**	**END OF YEAR 5**
Earned options in year 1: 7/10 KPI result		7,000	7,000	7,000		
Earned options in year 2: 6/10 KPI result			6,000	6,000	6,000	
Earned options in year 3: 9/10 KPI result				9,000	9,000	9,000
(Next EIS scheme commences)						
Unearned options		3,000	7,000	8,000	5,000	1,000
Total options earned and vested		**7,000**	**13,000**	**22,000**	**15,000**	**9,000**

Further performance testing of unvested options at the end of the three-year performance period

For the first round of the EIS (covering FY18 to FY21), options or rights that remained unvested at the end of the last Performance period (other than those subject only to tenure-based vesting) were subject to further performance testing. The Board was able to award those rights or options if the team delivered a superior TSR performance measured as follows:

- 50% of the remaining unvested rights if the Measured TSR at the end of the last Performance vesting period exceeded the Initial Public Offering Offer Price ("Offer Price") by 150%; and
- The remaining 50% of the unvested rights if the Measured TSR at the end of the last Performance vesting period exceeded the Offer Price by 250%.

As both tests were met at the conclusion of the 2021 financial year, those remaining unvested options were deemed by the Board to be Performance-vested. These options were then subject to tenure-based vesting.

For the second round of the EIS (covering FY22 to FY24), if any options or rights remain unvested (other than due to the timing of the grant of such rights), the Board will be able to perform a further performance review at the end of the 2024 financial year ("FY24"). The Board will be able to award those rights or options if the team has delivered a superior TSR performance, defined as follows:

- 50% of the remaining unvested rights if the Measured TSR at the end of the last Performance vesting period (FY24) has exceeded the 2022 financial year ("FY22") Baseline by 75%; and
- The remaining 50% of the unvested rights if the Measured TSR at the end of the last Performance vesting period (FY24) has exceeded the FY22 Baseline by 125%.

If awarded, these rights or options will then be subject to tenure based vesting over three years.

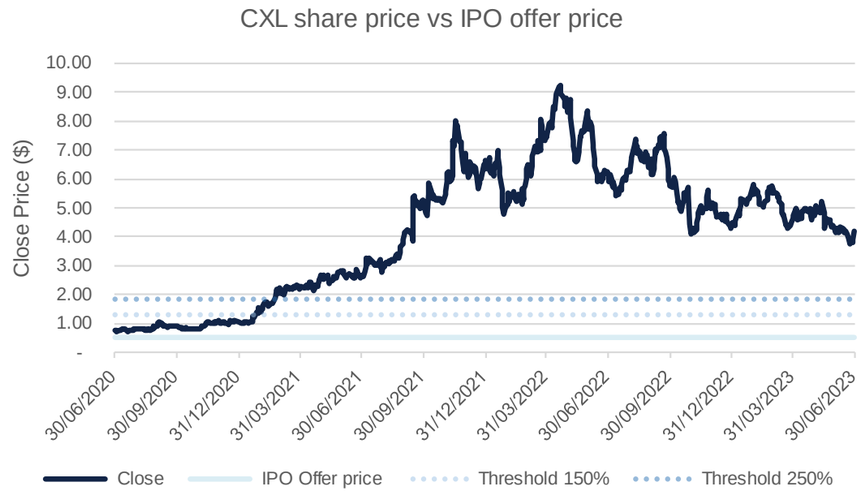
These provisions are a key mechanism to ensure that innovations that create long-term value for shareholders are rewarded, and that the Company and KMP balance their focus on long-term value creation, while also delivering on shorter term KPIs focused on the foundations of long term value.

Following on from the illustrative example above, the table below shows how this further performance testing works:

ILLUSTRATIVE EXAMPLE: VESTING OF OPTIONS

A maximum total of 90,000 options are allocated to a senior executive	Vesting of each tranche of options under the initial allocation of a 90,000 option pool for a senior executive				
	BEGINNING YEAR 1	**END OF YEAR 1**	**END OF YEAR 2**	**END OF YEAR 3**	**END OF YEAR 4**	**END OF YEAR 5**
Earned options in year 1: 7/10 KPI result		7,000	7,000	7,000		
Earned options in year 2: 6/10 KPI result			6,000	6,000	6,000	
Earned options in year 3: 9/10 KPI result				9,000	9,000	9,000
(Next EIS scheme commences)						
Unearned options (24,000)		3,000	7,000	8,000	5,000	1,000
Total options earned and vested		7,000	13,000	22,000	15,000	9,000
Further TSR Test	**Test Point**					
If share price 75% above FY22 Baseline				50% of 24,000 / 3= 4,000	4,000	4,000
If share price 125% above FY22 Baseline				100% of 24,000 / 3 = 8,000	8,000	8,000

The following chart illustrates how this part of the EIS operated to benefit shareholders with a strong performing share price in the five years following the Company's listing on the ASX.



The outcome illustrated in the chart reinforces the EIS objective to align management and staff with the longer-term to deliver shareholder returns, and reinforces that at-risk remuneration is earned if shareholders benefit from an appreciation in the value of the Company.

Claw back provision

In the event of fraud, dishonesty, or other material breaches of Company policy, the Board reserves the right to reassess and reduce or immediately lapse all unexercised rights and/or options, whether vested or not.

The EIS and a successful takeover offer for Calix

In the event of a successful takeover offer for Calix:

- All rights or options that are both Performance-vested and Tenure-vested (that is, they have been earned, but not yet exercised) will be converted into shares and included in the equity transaction as part of the takeover; and
- If the Board so determines, all rights or options that are Performance-vested but not Tenure-vested are able to be converted into shares and can be included in the equity transaction as part of the takeover; and
- If the Board so determines, all rights or options not already either Performance or Tenure-vested can vest and convert into shares and be included in the equity transaction as part of the takeover.

Vesting of options or rights for performance to 30 June 2023

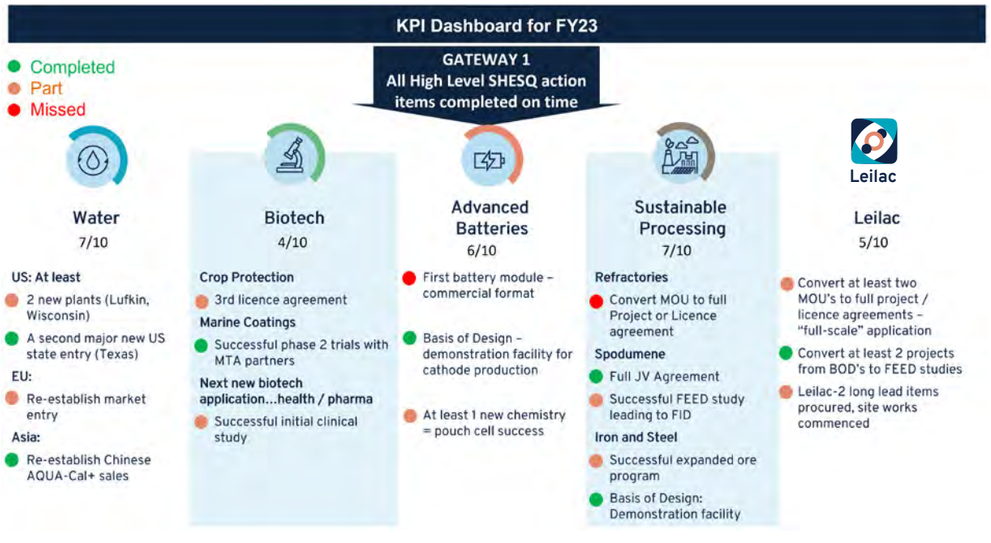
When applying the performance criteria for the period to 30 June 2023, the Board assessed the actual performance against the performance vesting criteria as follows:

- Gateway 1: performance against the Company's annual safety and quality action plan was met and achieved in full.
- Gateway 2: the Board has confirmed that the TSR performance was not met and therefore KMP were ineligible to receive any performance rights for FY23.
- Gateway 3: the Group KPI's were assessed for the business as 6.55 out of 10 (see the KPI Dashboard for FY23 below for details).

As a result of Gateway 2 not being met, the options for FY23 have not Performance-vested at this point in time. However, as outlined above, the Board will perform a further performance review in the following manner:

1. At the end of FY24, if the absolute TSR is above baseline during the year, Gateway 2 will be met and the FY23 options will Performance-vest. They will then be subject to tenure-based vesting; or
2. At the end of FY24, if the team has delivered a superior TSR performance as defined in the further testing criteria, either 50% or 100% of unearned options from FY21 to FY23, under the second round of the EIS, will performance vest. They will then be subject to tenure-based vesting.

Gateway 3 measures performance based upon KPIs agreed each year with the Board. The KPIs for FY23 and the Company's performance against each follows:



The Water business was judged to have performed well, with the achievement of increased revenue and gross margin, albeit there were some delays to completing the two new plants. The decision to focus on the US instead of trying to establish a new presence in the EU, at this time, contributed to a better outcome for the business.

In Biotech, new applications in health were delayed as the Solving Antimicrobial Resistance in Agribusiness, Food, and Environments Cooperative Research Centre ("SAAFE CRC") initiative took longer to establish than planned, although the new livestock project under the SAAFE CRC has potential.

In Advanced Batteries, significant progress was made in production of lithium manganese oxide materials as well as new chemistries (including lithium iron phosphate), although the commercial format packs were not delivered by the end of FY23.

In Sustainable Processing, a decision was taken to withdraw focus on refractories, given the relatively slow pace and size of the market, in favour of larger and faster-moving opportunities in lithium and iron and steel. Further expansion of the iron ore program meant the KPI to complete the ore program could not be achieved by 30 June 2023. The Financial Investment Decision for the lithium project with Pilbara Minerals (ASX:PLS) was also delayed slightly, and achieved in August 2023.

Leilac made considerable progress, albeit completing one, instead of two new licence agreements, and permitting delays leading to delays in the commencement of site works (demolition) for the Leilac-2 project.

After weighing up the KPI contributions from each line of business, the Board determined a weighted average KPI score for the Group for FY23 of 6.55 out of 10.

Comprehensive operational updates from each line of business are available in the Directors' Report.

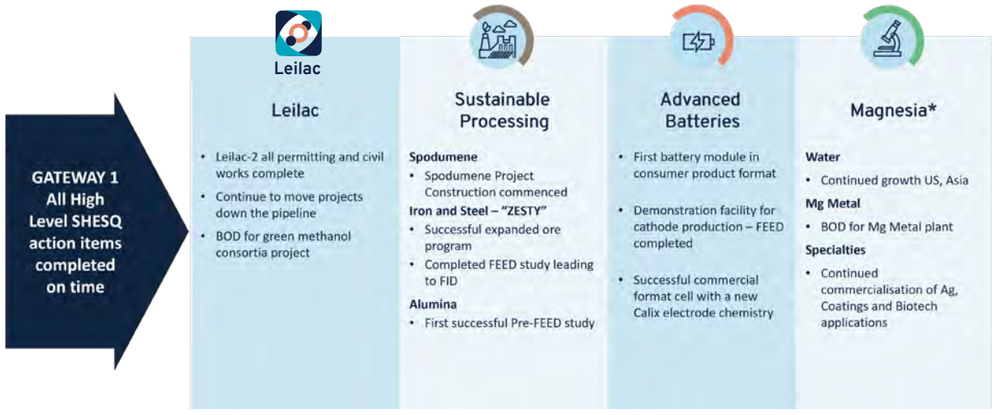
EIS options of rights issued to KMP

30 June 2023	Balance at the start of the year	Options issued	Options exercised	Balance as at 30 June 2023	Options earned & vested	Unearned Options
Phil Hodgson	1,035,160	111,152	-	1,146,312	1,090,736	55,576
Mark Sceats	641,186	61,338	-	702,524	671,853	30,671
Darren Charles	608,622	61,338	(150,000)	519,960	489,291	30,669
Daniel Rennie	137,017	-	-	137,017	137,017	-
Doug Kelley	44,843	-	-	44,843	22,442	22,401
Hinne Temminck Tuinstra	76,569	43,855	-	120,424	98,496	21,928
	2,543,397	**277,683**	**(150,000)**	**2,671,080**	**2,509,835**	**161,245**

The fair value of options exercised by KMP during the year was $708,098. As at the date of this report, 5,778,486 options remain on issue with certain options having lapsed as a result of staffing changes, 4,600,983 being earned, vested and currently unexercised into Ordinary Shares, a further 1,177,503 remain unearned and unvested.

FY24 priorities

Gateway 3 measures performance based upon KPIs agreed each year with the Board. This helps to drive achievement of annual performance metrics, balancing both short-term and long-term shareholder value creation. The KPIs agreed by the Board for FY24 follow:



*Magnesia includes the lines of business previously referred to as Water and Biotech. The Magnesia business is focused on developing and applying Calix's magnesium-based materials to solve environmental challenges, including its highly active magnesium oxide materials for water treatment, agriculture, marine and antimicrobial resistance applications.

Additional cash bonus opportunity

If all Company KPIs are achieved in full, and provided the Company also achieves a positive EBITDA, KMP can also qualify for a cash bonus, payable immediately, that will be shared amongst the total payroll of the Company based upon base pay, and not exceeding 10% of EBITDA in total. No cash bonuses have been paid to KMP pursuant to this incentive.

This report is signed in accordance with a resolution of the Board of directors.

P J Turnbull AM
Chair
Sydney
24 August 2023

BDO

Tel: +61 2 9251 4100
Fax: +61 2 9240 9821
www.bdo.com.au

Level 11, 1 Margaret St
Sydney NSW 2000
Australia

DECLARATION OF INDEPENDENCE BY ELYSIA ROTHWELL TO THE DIRECTORS OF CALIX LIMITED

As lead auditor of Calix Limited for the year ended 30 June 2023, I declare that, to the best of my knowledge and belief, there have been:

1. No contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the audit; and
2. No contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Calix Limited and the entities it controlled during the period.

Elysia Rothwell
Director

BDO Audit Pty Ltd

Sydney, 24 August 2023

Consolidated Statement of Profit or Loss and other Comprehensive Income
For the year ended 30 June 2023

	Note	June 2023 $	June 2022 $
Sales of goods	3	18,599,624	18,467,734
Cost of sales		(12,402,928)	(13,268,028)
Gross profit		**6,196,696**	**5,199,706**
Other income	3	11,007,242	2,323,551
Gross profit and other income		**17,203,938**	**7,523,257**
Sales and marketing expenses		(9,450,374)	(7,674,523)
Research and development expenses		(14,531,570)	(7,095,063)
Administration and other expenses		(7,700,098)	(4,898,001)
Depreciation, amortisation and impairment expenses	4	(5,860,772)	(4,221,936)
Finance costs		(326,974)	(82,811)
Foreign exchange losses		(87,946)	(10,858)
Share based payment expense	19	(2,740,617)	(312,524)
Loss from ordinary activities before income tax		**(23,494,413)**	**(16,772,459)**
Income tax benefit	5	79,359	264,640
Loss for the year		**(23,415,054)**	**(16,507,819)**
Total loss for the year is attributable to:			
Owners of Calix Limited		(23,185,875)	(16,338,243)
Non-controlling interests		(229,179)	(169,576)
		(23,415,054)	**(16,507,819)**
Other comprehensive income			
Items that may be reclassified to profit or loss:			
Exchange differences on translation of foreign operations		1,275,421	(814,247)
Total comprehensive income for the year		**(22,139,633)**	**(17,322,066)**
Total comprehensive income for the year is attributable to:			
Owners of Calix Limited		(22,063,427)	(17,067,118)
Non-controlling interests		(76,206)	(254,948)
		(22,139,633)	**(17,322,066)**
Basic and diluted earnings per share (cents)	20	(13.96)	(10.29)

The consolidated statement of profit or loss and other comprehensive income should be read in conjunction with the accompanying notes.

Consolidated Statement of Financial Position
As at 30 June 2023

	Note	June 2023 $	June 2022 $
ASSETS			
Current assets			
Cash and cash equivalents	6	74,466,477	24,982,760
Trade and other receivables	7	10,308,983	3,231,784
Inventories	8	4,334,433	3,396,736
Total current assets		**89,109,893**	**31,611,280**
Non-current assets			
Trade and other receivables	7	292,735	284,419
Intangible assets	9	9,073,884	6,441,630
Goodwill	10	3,638,392	3,638,392
Right of use asset	14	947,722	536,793
Property, plant and equipment	11	24,443,246	18,698,327
Total non-current assets		**38,395,979**	**29,599,561**
Total assets		**127,505,872**	**61,210,841**
LIABILITIES			
Current liabilities			
Trade and other payables	12	5,267,155	3,256,009
Borrowings	13	318,294	863,489
Current lease liabilities	14	354,732	277,535
Provisions	15	1,727,509	1,380,424
Deferred revenue	16	13,260,852	9,349,670
Total current liabilities		**20,928,542**	**15,127,127**
Non-current liabilities			
Borrowings	13	7,372	15,261
Non-current lease liabilities	14	636,716	315,390
Provisions	15	465,000	367,458
Deferred tax		509,220	588,579
Total non-current liabilities		**1,618,308**	**1,286,688**
Total liabilities		**22,546,850**	**16,413,815**
NET ASSETS		**104,959,022**	**44,797,026**
EQUITY			
Issued capital	17	153,452,224	72,955,801
Reserves	18	26,161,700	23,234,046
Accumulated losses		(75,887,370)	(52,701,495)
Capital and reserves attributable to the owners of Calix Limited		103,726,554	43,488,352
Non-controlling interests	**30**	1,232,468	1,308,674
TOTAL EQUITY		**104,959,022**	**44,797,026**

The consolidated statement of financial position should be read in conjunction with the accompanying notes.

Consolidated Statement of Cash Flows
For the year ended 30 June 2023

	Note	June 2023 $	June 2022 $
Cash flows from operating activities			
Receipts from customers		18,584,254	18,415,832
Receipts from government bodies		7,382,082	12,607,272
Payments to suppliers and employees		(43,234,636)	(34,756,931)
Interest received		298,362	30,669
Interest paid		(286,663)	(37,354)
Net cash used in operating activities	28	**(17,256,601)**	**(3,740,512)**
Cash flows from investing activities			
Purchase of property, plant and equipment	11	(9,855,112)	(7,438,761)
Purchase of intellectual property	9	(3,175,994)	(1,581,162)
Net cash used in investing activities		**(13,031,106)**	**(9,019,923)**
Cash flows from financing activities			
Proceeds from issues of shares (net of transaction costs)		79,561,011	813,170
Proceeds from sale of minority interest in subsidiary, net of transaction costs	30	-	22,845,374
Proceeds from / (Payments) for loans to directors		1,166,049	(1,166,049)
Payment for lease principal	14	(402,552)	(308,347)
Proceeds from borrowings		1,727,166	1,790,664
Repayments of borrowings		(2,280,252)	(1,361,764)
Net cash provided from financing activities		**79,771,424**	**22,613,048**
Net increase in cash and cash equivalents		**49,483,717**	**9,852,613**
Cash and cash equivalents at the beginning of the year		24,982,760	15,130,147
Cash and cash equivalents at the end of the year	**6**	**74,466,477**	**24,982,760**

The consolidated statement of cash flows should be read in conjunction with the accompanying notes.

Consolidated Statement of Changes in Equity
For the year ended 30 June 2023

	Issued Capital	Reserves	Accumulated losses	Total Parent Entity Interest	Non-Controlling Interest	Total
Balance at 30 June 2021	**70,967,717**	**3,543,560**	**(36,363,252)**	**38,148,025**	**-**	**38,148,025**
Net losses for the year after tax	-	-	(16,338,243)	(16,338,243)	(169,576)	(16,507,819)
Other comprehensive income for the year						
Net movement in foreign currency translation reserve	-	(728,875)	-	(728,875)	(85,372)	(814,247)
Total comprehensive income for the year	-	(728,875)	(16,338,243)	(17,067,118)	(254,948)	(17,322,066)
Other transactions						
New issues of shares (net of transaction costs)	813,170	-	-	813,170	-	813,170
Fair value of EIS rights granted	-	312,524	-	312,524	-	312,524
Fair value of EIS rights issued	919,850	(919,850)	-	-	-	-
Conversion of warrants	255,064	(255,064)	-	-	-	-
Divestment of investment in subsidiary, net of transaction costs	-	21,281,751	-	21,281,751	1,563,622	22,845,373
Balance at 30 June 2022	**72,955,801**	**23,234,046**	**(52,701,495)**	**43,488,352**	**1,308,674**	**44,797,026**
Net losses for the year after tax	-	-	(23,185,875)	(23,185,875)	(229,179)	(23,415,054)
Other comprehensive income for the year						
Net movement in foreign currency translation reserve	-	1,122,448	-	1,122,448	152,973	1,275,421
Total comprehensive income for the year	-	1,122,448	(23,185,875)	(22,063,427)	(76,206)	(22,139,633)
Other transactions						
New issues of shares (net of transaction costs)	79,561,011	-	-	79,561,011	-	79,561,011
Fair value of EIS rights granted	-	2,740,617	-	2,740,617	-	2,740,617
Fair value of EIS rights issued	935,412	(935,412)	-	-	-	-
Divestment of investment in subsidiary, net of transaction costs	-	1	-	1	-	1
Balance at 30 June 2023	**153,452,224**	**26,161,700**	**(75,887,370)**	**103,726,554**	**1,232,468**	**104,959,022**

The consolidated statement of changes in equity should be read in conjunction with the accompanying notes.

1. SUMMARY OF MATERIAL ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of the financial report are set out below. The financial report covers the consolidated group of Calix Limited ("the Company") and its controlled entities ("the Group").

The following is a summary of the material accounting policies adopted by the Group in the preparation of the financial report. The accounting policies have been consistently applied to all years presented, unless otherwise stated.

a) Basis of preparation

The financial report is a general purpose financial report that has been prepared in accordance and compliance with Australian Accounting Standards (including Australian Accounting Interpretations) of the Australian Accounting Standards Board (AASB) and Corporations Act 2001 as appropriate for profit oriented entities; and therefore this financial report also complies with the International Financial Reporting Standards as issued by the International Accounting Standards Board.

(i) Historical cost convention

The financial report has been prepared on an accrual basis and is based on historical costs, modified, where applicable by the measurement at fair value of selected non-current assets, financial assets and financial liabilities.

(ii) Critical accounting estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 1(i).

b) Going concern

The financial report has been prepared on a going concern basis, which contemplates the continuity of normal business activities and the realisation of assets and settlement of liabilities in the normal course of business. During the year ended 30 June 2023, the Group incurred a net loss after tax of $23,415,054 (June 2022: $16,507,819), and cash flow out from operating activities of $17,254,052 (June 2022: cash flow out: $3,740,512). As at 30 June 2023, the Group had cash reserves of $74,466,477 (June 2022: $24,982,760), net current assets of $68,181,351 (June 2022: $16,484,153).

The Group has prepared a detailed cash flow forecast which anticipates a positive cash position over the 12-month period from the date of authorisation of this report.

c) Material Accounting Policies

Accounting policies are selected and applied in a manner that ensures that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events is reported. Other material accounting policies are contained in the notes to the consolidated financial statements to which they relate.

d) Rounding of amounts

The Company is of a kind referred to in ASIC Legislative Instrument 2016/191, relating to the 'rounding off' of amounts in the directors' report. Amounts in the directors' report have been rounded off in accordance with the instrument

1. SUMMARY OF MATERIAL ACCOUNTING POLICIES (CONTINUED)

e) Goods and services tax

Revenues, expenses, and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Tax Office. In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the statement of financial position are shown inclusive of GST.

f) New or amended accounting standards and interpretations

The group has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") that are mandatory for the current reporting period. Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

g) New accounting standards and interpretations not yet mandatory or early adopted

Australian Accounting Standards and Interpretations that have recently been issued or amended but are not yet mandatory, have not been early adopted by the consolidated entity for the annual reporting period ended 30 June 2023. The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations.

h) Foreign currency transactions and balances

Functional and presentation currency
The functional currency of each of the Group's entities is measured using the currency of the primary economic environment in which that entity operates. The consolidated financial statements are presented in Australian Dollars which is the Group's functional and presentation currency.

Transactions and balances
Foreign currency transactions are translated into functional currency using the exchange rates prevailing at the date of transaction. Foreign currency monetary items are translated at the year-end exchange rate. Non-monetary items measured at historical cost continue to be carried at the exchange rate at the date of the transaction. Non-monetary items measured at fair value are reported at the exchange rate at the date when fair values were determined.

Exchange differences arising on the translation of monetary items are recognised in the profit or loss, except where deferred in equity as a qualifying cash flow or net investment hedge.

Exchange difference arising on translation of non-monetary items are recognised directly in equity to the extent that the gain or loss is directly recognised in equity, otherwise the exchange difference is recognised in the profit or loss.

1. SUMMARY OF MATERIAL ACCOUNTING POLICIES (CONTINUED)

Group companies
The financial results and position of foreign operations whose functional currency is different from the Group's presentation currency are translated as follows:

- assets and liabilities are translated at year-end exchange rates prevailing at that reporting date
- income and expense are translated at average exchange rates for the year; and
- retained earnings are translated at the exchange rates prevailing at the date of the transaction.

Exchange differences arising on translation of foreign operations are transferred directly to the Group's foreign currency translation reserve in the statement of financial position. These differences are also recognised in the statement of comprehensive income as other comprehensive income. The foreign currency reserve is recognised in profit or loss when the foreign operation is disposed of.

i) Critical accounting estimates and judgments

The directors evaluate estimates and judgements incorporated into the financial report based on historical knowledge and best available current information. Estimates assume a reasonable expectation of future events and are based on current trends and economic data, obtained both externally and within the Group. Information on material estimates and judgements used in applying the accounting policies can be found in the following notes:

Judgement Area	Note
Revenue and other income	3
Income tax	5
Recovery of trade and other receivables	7
Inventory	8
Intangibles	9
Goodwill impairment test	10
Property, plant and equipment	11
Right of use assets and lease liabilities	14
Provisions	15
Share-based payment transactions	19

2. SEGMENT INFORMATION

The Group identifies its operating segments based on the internal reports that are reviewed and used by the Group's chief operating decision makers ("CODM"). The CODM consists of the Executive KMP as disclosed in the Remuneration Report on pages 80-92. For the year ended 30 June 2023, the Group has identified three segments based on the geographical regions and business line in which they operate. The LEILAC segment is in Europe with a small US subsidiary who collectively are the CO_2 mitigation business line, the US segment is the US section of the water business line, and the Australian & SE Asian segments comprise of all business segments. The Group has continued to implement a business line reporting approach in the current financial year and is looking to continue improving upon the implementation in the next financial year.

The aggregation criteria under AASB 8 – Operating Segments has been applied to include the results of each region within the segment in which it operates.

For the period ended June 2023	Australia & SE Asia $	US $	LEILAC $	Elimination $	Total $
Segment Revenue					
Products sold	10,339,710	14,773,204	-	(6,863,723)	**18,249,191**
Revenue from rental agreements	117,923	-	-	-	**117,923**
Other services	87,195	97,769	47,546	-	**232,510**
Total Segment Revenue	**10,544,828**	**14,870,973**	**47,546**	**(6,863,723)**	**18,599,624**
Timing of revenue recognition					
Goods transferred at a point in time	10,421,546	14,773,204	-	(6,863,723)	**18,331,027**
Services transferred over time	123,282	97,769	47,546	-	**268,597**
Total Segment Revenue	**10,544,828**	**14,870,973**	**47,546**	**(6,863,723)**	**18,599,624**
Other Income	8,994,456	19,035	2,026,625	(32,874)	**11,007,242**
Total Revenue and Other Income	**19,539,284**	**14,890,008**	**2,074,171**	**(6,896,597)**	**29,606,866**
EBITDA	**(17,833,181)**	**475,602**	**(118,839)**	**(157,224)**	**(17,633,642)**
Depreciation and amortisation including leases	2,711,313	535,748	2,235,810	377,900	**5,860,771**
Impairment	-	-	-	-	**-**
Loss before income tax expense	**(20,544,494)**	**(60,146)**	**(2,354,649)**	**(535,124)**	**(23,494,413)**
Income tax benefit	-	-	-	(79,359)	**(79,359)**
Loss after income tax expense	**(20,544,494)**	**(60,146)**	**(2,354,649)**	**(455,765)**	**(23,415,054)**

For the period ended June 2023	Australia & SE Asia $	US $	LEILAC $	Elimination $	Total $
Total Segment Assets	90,985,008	7,687,322	31,032,992	(2,199,450)	127,505,872
Total Segment Liabilities	12,739,845	5,292,255	12,256,386	(7,741,636)	22,546,850

2. SEGMENT INFORMATION (CONTINUED)

For the period ended June 2022	Australia & SE Asia $	US $	LEILAC $	Elimination $	Total $
Segment Revenue					
Products sold	3,177,076	13,931,798	-	(432,556)	**16,676,318**
Revenue from rental agreements	124,785	-	-	-	**124,785**
Other services	1,442,797	79,940	143,894	-	**1,666,631**
Total Segment Revenue	**4,744,658**	**14,011,738**	**143,894**	**(432,556)**	**18,467,734**
Timing of revenue recognition					
Goods transferred at a point in time	4,587,848	13,931,798	-	(432,556)	**18,087,090**
Services transferred over time	156,810	79,940	143,894	-	**380,644**
Total Segment Revenue	**4,744,658**	**14,011,738**	**143,894**	**(432,556)**	**18,467,734**
Other Income	631,055	8,862	1,683,634	-	**2,323,551**
Total Revenue and Other Income	**5,375,713**	**14,020,600**	**1,827,528**	**(432,556)**	**20,791,285**
EBITDA	**(9,084,887)**	**(314,494)**	**(2,744,951)**	**2**	**(12,144,330)**
Depreciation and amortisation including leases	2,672,139	379,260	760,243	377,900	**4,189,542**
Impairment	-	-	32,394	-	**32,394**
Loss before income tax expense	**(12,150,889)**	**(707,803)**	**(3,535,431)**	**(378,336)**	**(16,772,459)**
Income tax (benefit)/expense	-	(66,047)	6,418	(205,011)	**(264,640)**
Loss after income tax expense	**(12,150,889)**	**(641,756)**	**(3,541,849)**	**(173,325)**	**(16,507,819)**

For the period ended June 2022	Australia & SE Asia $	US $	Europe $	Elimination $	Total $
Total Segment Assets	25,550,090	6,166,705	26,854,078	2,639,968	61,210,841
Total Segment Liabilities	7,304,740	3,801,693	8,662,005	(3,354,623)	16,413,815

3. REVENUE AND OTHER INCOME

	June 2023 $	June 2022 $
Revenue		
Water and Biotech revenues	3,607,211	3,438,752
IER product revenues	14,863,032	13,428,424
Other product revenues	129,381	1,600,558
Total revenue	**18,599,624**	**18,467,734**
Other income		
LEILAC project income	1,838,328	1,463,925
R&D incentive income	7,721,338	627,365
Other grant income	1,132,792	186,332
Interest income	298,361	30,669
Other income	16,423	15,260
Total other income	**11,007,242**	**2,323,551**

Recognition and Measurement

Revenue is measured at the fair value of the consideration received or receivable after taking into account any trade discounts and volume rebates allowed. The Group recognises revenue when the amount of revenue can be reliably measured, it is probable that the future economic benefits will flow to the entity and specific criteria have been met for each of the Group's activities as described below.

Sales of goods

Revenue for these activities are recognised when the customers obtain control of these assets at the point in time when the customer has obtained control of the goods which is considered to be fulfilment of the performance obligation. Payment terms are usually 30 days after receipt of the goods. For sales of dosing units, warranties are negotiated in each contract of sale.

Services transferred over time

Revenue for these activities are recognised as the customers obtains the benefit of the service over time; rental income is recognised in the corresponding rental period that a service is provided on a straight line basis. If payments are received in advance that income is deferred into the period that the service is delivered.

Grant income

Grant income is recognised when it is received or when the right to receive payment is established. Government grants relating to costs are deferred and recognised in the profit or loss over the period necessary to match them with the costs that they are intended to compensate.

R&D incentive income

The R&D incentive income recognised as other income is in relation to eligible research expenditure incurred for the current projects. The claimed amounts have been reviewed externally to ensure they are in accordance with the requirements of the Australian Taxation Office and AusIndustry.

Interest income

Interest income is recognised using the effective interest rate method, which for floating rate financial assets is the rate inherent in the instrument.

3. REVENUE AND OTHER INCOME (CONTINUED)

Other Income

Other income includes gains on disposal of items of property, plant and equipment and receipts. The amount of the income is determined as the difference between the net disposal proceeds and the carrying amount of the item.

Disaggregation of revenue

The disaggregation of revenue from contracts with customers is as follows:

2023	Products sold $	Revenue from rental agreements $	Other services $	Total $
Business lines*				
Water	18,238,438	117,923	103,128	**18,459,489**
Biotech	10,753	-	-	**10,753**
CO_2 Mitigation	-		47,546	**47,546**
Sustainable Processing	-	-	81,836	**81,836**
	18,249,191	**117,923**	**232,510**	**18,599,624**
Timing of revenue recognition				
Goods transferred at a point in time	18,249,191	-	81,836	**18,331,027**
Services transferred over time	-	117,923	150,674	**268,597**
	18,249,191	**117,923**	**232,510**	**18,599,624**

2022	Products sold $	Revenue from rental agreements $	Other services $	Total $
Business lines*				
Water	16,610,563	124,785	121,964	**16,857,312**
Biotech	65,755	-	-	**65,755**
CO_2 Mitigation	-		143,894	**143,894**
Sustainable Processing	-	-	1,400,773	**1,400,773**
	16,676,318	**124,785**	**1,666,631**	**18,467,734**
Timing of revenue recognition				
Goods transferred at a point in time	16,676,318	-	1,410,772	**18,087,090**
Services transferred over time	-	124,785	255,859	**380,644**
	16,676,318	**124,785**	**1,666,631**	**18,467,734**

3. REVENUE AND OTHER INCOME (CONTINUED)

Other income disaggregated along business lines:

	June 2023 $	June 2022 $
Other income		
Business lines		
Water	1,281,742	56,060
Biotech	673,714	30,159
Advanced Batteries	1,884,022	530,251
CO_2 Mitigation	5,416,811	1,652,832
Sustainable Processing	1,436,169	15,817
Corporate	314,784	38,432
Total other income	**11,007,242**	**2,323,551**

4. EXPENSES

The Group has identified several expense items which are material due to the significance of their nature and/or amount. These are listed separately here to provide a better understanding of the financial performance of the Group:

	Note	June 2023 $	June 2022 $
Employee benefit expenses		13,749,127	11,975,499
Depreciation and amortisation expense	9, 11	5,510,938	3,913,263
Depreciation of right of use asset	14	349,834	276,279
Impairment expense	11	-	32,394

Employee benefit expenses

Employer contributions to defined contribution superannuation plans are recognised as an expense in the profit or loss as they are paid or payable. Refer to Note 15 and Note 19 for details on provisions for employee benefits and details of share-based payments.

Financing costs

Finance costs includes interest relating to borrowings, lease liabilities and vehicle financing facilities. Interest is recognised over the life of the facilities calculated using the effective interest rate. Refer to Note 13 and Note 14 for details on borrowings, vehicle financing facilities and leases.

5. INCOME TAX

Income tax expense

	June 2023 $	June 2022 $
Current tax		
Current tax on profits for the year	-	-
Adjustments for current tax of prior periods	-	(59,629)
Total current tax expense	**-**	**(59,629)**
Deferred income tax		
(Decrease)/Increase in deferred tax liabilities	(79,359)	(205,011)
Total deferred tax benefit	(79,359)	(205,011)
Income tax benefit attributable to the Group	**(79,359)**	**(264,640)**

Numerical reconciliation of income tax to prima facie tax payable:

	June 2023 $	June 2022 $
Prima facie income tax expense/(benefit) on loss from ordinary activities (25%)*	(5,056,130)	(3,015,701)
Amortisation of intangibles	(79,359)	(205,011)
Adjustments for current tax of prior periods	-	(59,629)
Tax effect of R&D incentive**	2,901,477	-
Expenses not deductible for tax purposes	-	-
Temporary differences not recognised	1,244,707	381,899
Unutilised tax losses	909,946	2,633,802
Income tax benefit attributable to the Group	**(79,359)**	**(264,640)**
Tax losses		
Unused tax losses for which no deferred tax asset has been recognised	8,336,334	14,312,009
Potential income tax benefit @ 25%*	**2,084,084**	**3,578,002**

*As at 30 June 2023, income tax effects has only been incurred at the Australian tax rate of 25%. There were no income tax effects from overseas subsidiaries.

**The Group accounts for R&D tax incentives as a government grant under AASB 120, resulting in the incentive being recognised in the profit or loss; however the R&D expenditure is treated as non-deductible for tax purposes.

Recognition and Measurement

Current tax

The income tax benefit for the year comprises current income tax benefit, research and development claim and deferred tax benefit. Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period together with the research and development claim submitted for the reporting period. Current tax liabilities/assets are therefore measured at the amounts expected to be paid to/recovered from the relevant taxation authority.

5. INCOME TAX (CONTINUED)

Deferred tax

Deferred income tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses. Current and deferred income tax expense/(benefit) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted at the end of the reporting period. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability. Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that is it probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where the temporary difference exists in relation to investments in subsidiaries, branches, associates and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities related to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that the net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred assets or liabilities are expected to be recovered or settled.

6. CURRENT ASSETS – CASH AND CASH EQUIVALENTS

	June 2023 $	June 2022 $
Cash at bank and on hand	74,466,477	24,982,760

Cash at bank and on hand bears floating interest rates. The interest rate relating to cash and cash equivalents for the year across all bank accounts was between 0.00% and 1.35% (2022: between 0.00% and 0.7%).

Cash and cash equivalents include cash on hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within short-term borrowings in current liabilities on the statement of financial position.

7. TRADE AND OTHER RECEIVABLES

	June 2023 $	June 2022 $
Current		
Trade receivables	1,522,428	1,454,366
R&D incentive receivable	7,721,338	-
Other receivables	5,184	152,573
Prepayments	748,916	261,636
Deposits	311,117	197,160
Director advances	-	1,166,049
Total current trade and other receivables	**10,308,983**	**3,231,784**
Non-current		
Deposits	274,000	274,000
Other	18,735	10,419
Total non-current trade and other receivables	**292,735**	**284,419**

Trade receivables

Trade receivables are initially recognised at fair value and subsequently measured at amortised cost using the effective interest method, less any provision for impairment. They are presented as current assets unless collection is not expected for more than 12 months after the reporting date. Trade receivables are generally due for settlement within 30 days.

Recoverability of trade receivables

Credit risk management processes

Credit risk is managed through the maintenance of procedures ensuring to the extent possible, that customers and counterparties to transactions are of sound credit worthiness. Such monitoring is used in assessing receivables for impairments. Where the Group is unable to ascertain a satisfactory credit risk profile in relation to a customer or counterparty, the risk may be further managed through obtaining security by way of personal or commercial guarantees over assets of sufficient value which can be claimed against in the event of any default. Where a creditor is more than 60 days overdue, and there is no agreed payment plan in place, the debt shall be considered impaired and a bad debt provision shall be raised in accordance with the Group's policy on recoverability of trade receivables, see Note 21. Where a debtor is more than 90 days overdue, and there is no agreed payment plan in place, the debt shall be defined to be in default on the basis that there is a low expectation of recoverability of the amount.

Recognition and measurement of expected credit losses

The Group applies the AASB 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets. Trade receivables and contract assets have shared credit risk characteristics and, as such, the expected loss rates for trade receivables are a reasonable approximation of loss rates for contract assets. Losses incurred in the last 3 years represent less than 1% of receivables and are immaterial. Therefore, no provision for expected credit losses has been recorded.

Other receivables are recognised at amortised cost, less any provision for expected credit losses.

Due to the short-term nature of the receivables, their carrying amount is assumed to approximate fair value. The maximum exposure to credit risk at the end of the reporting period is the carrying amount of each class of receivables mentioned above. Refer to Note 21 for more information on the risk management policy of the Group and credit quality of the receivables.

7. TRADE AND OTHER RECEIVABLES (CONTINUED)

R&D incentive receivable
The Company is eligible, in the current year, for an R&D grant which is receivable after the Australia Tax Office processes the Company's tax return. The amount of R&D grant receivable is accrued based on eligible expenses incurred during the financial year.

The company exceeded the $20m group turnover threshold to be eligible for the R&D incentive rebate in the prior year and therefore was not eligible for the cash rebate from the ATO.

Deposit paid
The balance of deposits paid comprise prepayment associated with supply of utilities for Bacchus Marsh; a guarantee on the office sites at Pymble; deposits for an overseas employment agency; and a bond paid to the Department of Energy & Mining in South Australia for future mine rehabilitation work.

Director advances
See directors' report on loans made to directors in the prior year. The fair value of the advances were considered to be at face value as they were repayable before the end of the calendar year.

8. CURRENT ASSETS – INVENTORY

	June 2023 $	June 2022 $
Raw materials and consumables	3,511,599	2,966,783
Work-in-progress	600,106	189,485
Finished goods and goods for resale	222,728	240,468
Total inventory	**4,334,433**	**3,396,736**

Inventories are measured at the lower of cost and net realisable value. Costs including material and freight are assigned on the basis of weighted averages. Net realisable value represents the estimated selling price less estimated costs necessary to make the sale.

9. NON-CURRENT ASSETS – INTANGIBLES

	June 2023 $	June 2022 $
Customer contracts	2,091,000	2,091,000
Less: accumulated amortisation	(749,275)	(540,175)
Intellectual property	1,359,000	1,359,000
Less: accumulated amortisation	(486,975)	(351,075)
Brand names	329,000	329,000
Less: accumulated amortisation	(117,892)	(84,992)
Capitalised development costs	4,375,251	1,699,523
Patents and trademarks	2,830,725	2,330,459
Less: accumulated amortisation	(556,950)	(391,110)
Total intangibles	**9,073,884**	**6,441,630**

Movement in the carrying amounts for intellectual property between the beginning and the end of the period:

	Intangible Assets $
Balance as at 30 June 2022	6,441,630
Additions during the period	
Capitalised development costs	2,675,728
Patents and trademarks	500,266
Less amortisation during the period	(543,740)
Balance as at 30 June 2023	**9,073,884**

Intangibles
Intangible assets are measured at cost less any accumulated amortisation and any impairment losses. Amortisation is systematically allocated over the useful life of each identifiable asset with a finite life.

Customer contracts
Customer contracts were acquired as part of a business combination. They are recognised at their fair value at the date of acquisition and are subsequently amortised on a straight-line basis over their estimated useful lives. Customer contracts have a finite life and are carried at cost less any accumulated amortisation and any impairment losses. In calculating amortisation costs, customer contracts are taken to have a useful life of 10 years.

Intellectual property
Intellectual property was acquired as part of a business combination. It is recognised at fair value at the date of acquisition and is subsequently amortised on a straight-line basis over its estimated useful life. Intellectual property has a finite life and is carried at cost less any accumulated amortisation and any impairment losses. In calculating amortisation costs, intellectual property is taken to have a useful life of 10 years.

9. NON-CURRENT ASSETS – INTANGIBLES (CONTINUED)

Brand names

Brand names were acquired as part of a business combination. They are recognised at fair value at the date of acquisition and are subsequently amortised on a straight-line basis over their estimated useful lives. Brand names have a finite life and are carried at cost less any accumulated amortisation and any impairment losses. In calculating amortisation costs, brand names are taken to have a useful life of 10 years.

Capitalised development costs

The capitalised development costs intangible asset relates to expenditure incurred on the development, design and construction of cement and lime manufacturing; development, design and construction of lithium processing (see note 11); and BOOSTER-Mag technologies. The costs were recognised on the basis that they were incurred in the development phase, in accordance with AASB 138, through the demonstration of technical feasibility of completion, the intention to complete and use or sell the assets, as well as the clear path to economic benefits, the availability of technical and financial resources, and reliable measurement of expenditure. The capitalised development costs are not amortised until the associated product and service are demonstrated to be available for commercial use and an appropriate amortisation period set.

Patent and trademarks

Patents and trademarks are recognised at cost of acquisition. Patents and trademarks have a finite life and are carried at cost less any accumulated amortisation and any impairment losses. Amortisation is systematically allocated over the useful life of each patent and trademark. In calculating amortisation costs, patents are taken to have a useful life of 20 years, trademarks are taken to have a useful life of 10 years.

10. GOODWILL

	June 2023 $	June 2022 $
Goodwill	3,638,392	3,638,392
Total goodwill	**3,638,392**	**3,638,392**

Accounting for goodwill

Goodwill arises on the acquisition of a business where the fair value of the consideration exceeds the fair value of the net assets acquired. Goodwill is not amortised, instead it is tested annually for impairment, or more frequently if events or changes in circumstances indicate that it might be impaired and is carried as cost less accumulated impairment losses.

Goodwill is tested for impairment by comparing the recoverable amount to the carrying value of the asset. For the current period, the recoverable amount was determined based on value-in-use calculations which required the use of assumptions. In order to calculate the value-in-use, cash flows associated with the US operations, which is the cash generating unit to which the goodwill was assigned, was forecasted for the next 5 years. Historical averages were the primary sources of assumed values. Where possible, these were cross referenced with external sources. The growth rate used in the cash flow forecast from the second year was 2.6%, being the prior year's US inflation rate, rather than the higher internally budgeted growth rate. The discount rate used in the cash flow forecast was 10%, being an externally sourced rate based on an analysis of the Group. These growth and discount rates were also used to determine the terminal value.

10. NON-CURRENT ASSETS – GOODWILL (CONTINUED)

A sensitivity analysis was performed on the key assumptions of the cash flow forecast to determine how much each of the assumptions would have to move in order for the recoverable amount to drop below the carrying amount for the goodwill. In the case of the growth factor, this would need to drop to below 0.8% before an impairment would need to be recognised. In the case of the discount factor, this would need to rise above 13.5% before an impairment would need to be recognised. Impairment losses on goodwill are taken to the profit or loss and not subsequently reversed.

11. NON-CURRENT ASSETS – PROPERTY, PLANT AND EQUIPMENT

	June 2023 $	June 2022 $
Office furniture, fittings & equipment	2,355,485	1,637,393
Less: accumulated depreciation	(1,508,861)	(1,346,190)
Baccus March Calciner and R&D facilities	25,595,925	22,573,763
Less: accumulated depreciation	(17,821,662)	(15,855,003)
Slurry manufacturing and application assets	7,780,750	6,601,674
Less: accumulated depreciation	(1,857,481)	(1,848,739)
Mining tenements	1,173,664	1,173,664
Less: accumulated amortisation	(41,656)	(38,147)
LEILAC plants	22,962,650	19,238,099
Less: accumulated impairment and depreciation	(16,507,760)	(14,276,686)
SOCRATCES project	447,948	447,948
Less: accumulated impairment	(447,948)	(447,948)
Midstream UJV project*	1,473,693	-
Land	838,499	838,499
Total property, plant and equipment	**24,443,246**	**18,698,327**

* The Midstream UJV project is part of an unincorporated joint operation ("UJV") with Pilbara Minerals Limited. The above represents Calix's 45% share of the work in progress on the plant and equipment of this UJV.

11. NON-CURRENT ASSETS – PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

The below table shows the movement in the carrying amounts (dollars) for each class of plant and equipment between the beginning and the end of the year:

	Office furniture, fittings & equipment $	Baccus Marsh Calciner & R&D facilities $	Slurry assets $	Mining tenements $	LEILAC plants $	SOCRAT-CES project $	Midstream UJV Project $	Land $	Total $
Balance as at 30 June 2021	**237,059**	**7,365,018**	**4,193,759**	**1,139,759**	**753,023**	**-**	**-**	**838,499**	**14,527,117**
Additions	178,439	1,331,803	910,711	-	4,985,414	32,394	-	-	7,438,761
Disposals	(26,290)	-	(43,538)	-	-	-	-	-	(69,828)
Depreciation and amortisation expense	(98,541)	(1,978,061)	(594,381)	(4,242)	(748,204)	-	-	-	(3,423,429)
Impairment expense	-	-	-	-	-	(32,394)	-	-	(32,394)
Realised exchange rate adjustment	536	-	286,384	-	(28,820)	-	-	-	258,100
Balance as at 30 June 2022	**291,203**	**6,718,760**	**4,752,935**	**1,135,517**	**4,961,413**	**-**	**-**	**838,499**	**18,698,327**
Additions	708,099	2,840,645	1,566,686	-	3,265,989	-	1,473,693	-	9,855,112
Transfers	-	180,498	(180,498)	-	-	-	-	-	-
Depreciation and amortisation expense	(158,668)	(1,965,886)	(697,898)	(3,509)	(2,141,235)	-	-	-	(4,967,196)
Realised exchange rate adjustment	5,990	246	482,044	-	368,723	-	-	-	857,003
Balance as at 30 June 2023	**846,624**	**7,774,263**	**5,923,269**	**1,132,008**	**6,454,890**	**-**	**1,473,693**	**838,499**	**24,443,246**

11. NON-CURRENT ASSETS – PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Recognition and Measurement

Each class of plant and equipment is carried at cost or fair value as indicated less, where applicable, any accumulated depreciation and impairment losses. Plant and equipment are measured on the cost basis less depreciation and impairment losses. The cost of plant and equipment constructed includes the cost of materials, direct labour, borrowing costs and an appropriate proportion of fixed and variable overheads. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measure reliably. All other repairs and maintenance expenses are charged to the income statements during the financial period in which they are incurred.

Property, plant and equipment, other than freehold land, is depreciated or amortised on a straight-line basis over the expected useful life for the asset. Estimated useful lives and depreciation methods are reviewed at the end of the reporting period. The depreciation rates used for each class for depreciable assets are shown in the list below. Land is not subject to depreciation.

- Office, furniture, fittings and equipment- 10%-25%
- Baccus Marsh calciner and R&D facilities – 5%-25%
- Slurry manufacturing and application assets – 2%-50%
- LEILAC plants – 20-33%
- Mining tenements – extraction rate of ore
- UJV Midstream Project – work in progress – not depreciating yet

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each reporting date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. Gains and losses on disposal are determined by comparing proceeds with the carrying amount. These gains or losses are included in the statement of comprehensive income. When re-valued assets are sold, amounts included in the revaluation reserve relating to that asset are transferred to retained earnings.

Mining tenements and associated mineral resources

The costs of acquiring mining tenements and associated mineral resources are capitalised as part of property plant and equipment and amortised over the estimated productive life of each applicable resource. Amortisation commences when extraction of the mineral resource commences. The tenement is expected to be retired in 2044.

Impairment

In the year ended 30 June 2023, no assets were found to require impairment under the Group’s accounting policy (2022: $32,394).

12. CURRENT LIABILITIES – TRADE AND OTHER PAYABLES

	June 2023 $	June 2022 $
Trade payables	3,964.600	2,476,129
Other payables & accrued expenses	1,302.555	779,880
Total trade and other payables	**5,267,155**	**3,256,009**

Recognition and Measurement

Trade and other payables represent the liability outstanding at the end of the reporting period for goods and services received by the Group during the reporting period which remains unpaid. The balance is recognised as a current liability with the amount being normally paid within 30 days of recognition of the liability.

The carrying amounts of the Group's trade and other payables are denominated in Australian dollars. Due to the short-term nature of the payables, their carrying amount is assumed to approximate fair value. For an analysis of the financial risks associated with trade and other payables refer to Note 21.

13. BORROWINGS

	June 2023 $	June 2022 $
Current borrowings		
Loan facility	310,404	715,633
Asset financing facilities	7,890	33,194
Insurance premium funding	-	114,662
Total current borrowings	**318,294**	**863,489**
Non-current borrowings		
Asset financing facilities	7,372	15,261
Total non-current borrowings	**7,372**	**15,261**
Total borrowings	**325,666**	**878,750**

Recognition and Measurement

Borrowings are initially recognised at fair value, net of transaction costs incurred. Borrowings are subsequently measured at amortised cost. Any difference between the proceeds and the redemption amount is recognised as profit or loss over the period of the borrowings using the effective interest rate method.

Where there is an unconditional right to defer the settlement of the liability for at least 12 months after the reporting date, the loans or borrowings are classified as non-current.

Loan facility
Inland Environmental Resources, Inc. (IER) has a working capital facility for up to USD 500,000 with Umpqua Bank to assist with funding capital expenditures at an interest rate of 9.25% p.a.

Other borrowings
The other borrowings balances comprise of asset financing facilities totalling $15,262 (2022: $48,455) with an interest rate ranging from 5.78% p.a., and insurance premium funding facilities totalling $NIL (2022: $114,662).

13. BORROWINGS (CONTINUED)

	Facilities Available	Facilities Drawn
Commonwealth Bank of Australia	AUD 540,000	$NIL

The Commonwealth Bank of Australia facility has an indefinite revolving term that is subject to annual review. The facility is secured by a General Security Interest in Calix that is a second ranking charge.

14. RIGHT OF USE ASSETS AND LEASE LIABILITIES

This note provides information for leases where the group is a lessee.

	June 2023 $	June 2022 $
Right of use assets		
At the beginning of the period	536,793	793,901
Additions	753,617	-
Depreciation	(351,477)	(276,279)
Foreign exchange movements	8,789	19,171
Balance at the end of the period	**947,722**	**536,793**
Lease liabilities		
At the beginning of the period	592,925	836,643
Additions	753,617	-
Interest expense	40,470	45,457
Lease payments	(402,552)	(308,347)
Foreign exchange movements	6,988	19,172
Balance at the end of the period	**911,448**	**592,925**

Right-of-use assets

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset. Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the Group expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

14. RIGHT OF USE ASSETS AND LEASE LIABILITIES (CONTINUED)

The Group has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of assets whose fair value is less than $10,000. Lease payments on these assets are expensed to profit or loss as incurred.

Lease liabilities

A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties.

The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred. Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index, or a rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

15. PROVISIONS

	June 2023 $	June 2022 $
Current provisions		
Employee benefits	1,727,509	1,380,424
Total current provisions	**1,727,509**	**1,380,424**
Non-current provisions		
Employee benefits	168,390	308,256
Mine rehabilitation provision	296,610	59,202
Total non-current provisions	**465,000**	**367,458**
Total provisions	**2,192,509**	**1,747,882**

Movement in the carrying amounts for provisions between the beginning and the end of the year:

	Employee benefits $	Mine rehabilitation $	Total provisions $
Balance as at 30 June 2022	1,688,680	59,202	1,747,882
Additions and increases to provisions	1,093,218	237,408	1,330,626
Amounts used during the period	(863,505)	-	(863,505)
Advanced payment	(9,483)	-	(9,483)
Unused amounts reversed during the period*	(93,973)	-	(93,973)
Increase in discounted cash flows due to the passage of time	80,962	-	80,962
Balance as at 30 June 2023	**1,895,899**	**296,610**	**2,192,509**

* Unused amounts reversed during the period relate to long service leave provisions that lapsed when an employee ceased employment with Calix Limited.

15. PROVISIONS (CONTINUED)

Recognition and Measurement
Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, and it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the reporting date. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. The increase in the provision resulting from the passage of time is recognised in finance costs.

Employee benefits

Provision is made for the Group's liability for employee benefits arising from services rendered by employees to balance date. Employee benefits that are expected to be settled within one year have been measured at the amounts expected to be paid when the liability is settled, plus related on-costs.

Employee benefits payable later than one year have been measured at the present value of the estimated future cash outflows to be made for those benefits. In determining the liability, consideration is given to employee wage increases and the probability that the employee may satisfy vesting requirements. Those cash flows are discounted using market yields on national government bonds with terms to maturity that match the expected timing of cash flows.

Short-term employee benefits
Liabilities for wages and salaries, including non-monetary benefits, annual leave and long service leave expected to be settled wholly within 12 months of the reporting date are recognised in current liabilities in respect of employees' services up to the reporting date and are measured at nominal amounts.

Other long-term employee benefits
The liability for annual leave and long service leave not expected to be wholly settled within 12 months of the reporting date are recognised in non-current liabilities, provided there is an unconditional right to defer settlement of the liability. The liability is measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on national government bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

Rehabilitation provision

The Group recognises a mine rehabilitation provision on the basis that it has an obligation to restore the site of the mine in Myrtle Springs to its original condition and the cost to do so is uncertain. The measurement of the provision is the present value of the best estimate of the expenditure required to settle the obligation as at the end of the reporting period. It should also be noted that a bond of $274,000 was lodged on 9 October 2014 with the South Australia Department of State Development to be applied to rehabilitation of the area at cessation of mining activity, on the basis of a Program for Environmental Protection and Rehabilitation (PEPR) which was approved by the South Australia Department of State Development. This bond appears in Note 7 under deposits paid.

16. DEFERRED REVENUE

	June 2023 $	June 2022 $
Current deferred revenue and income	13,260,852	9,349,670
Total deferred revenue	**13,260,852**	**9,349,670**

Recognition and Measurement

Deferred revenue includes billings or payments received in advance of revenue recognition and is recognised as revenue when the revenue recognition criteria are met. Deferred revenue primarily consists of funds received but not yet recognised due to unearned portions of projects. Refer to Note 3 for further information regarding the revenue recognition associated with government grants.

Associated Projects

The current deferred revenue balance includes grant income received but not yet recognised. The current balance as at 30 June 2023 primarily included $12,227,497 relating to the LEILAC EU Horizons 2020 project (2022: $7,435,141), $110,117 relating to the CRC-P project (2022: $842,862) and $611,923 relating to the MMF project (2022: $746,815).

17. ISSUED CAPITAL

	June 2023 $	June 2022 $
Fully paid ordinary shares	160,802,844	78,276,547
Costs of fund raising recognised	(7,350,620)	(5,320,746)
Total issued capital	**153,452,224**	**72,955,801**

a. Fully paid ordinary shares

	2023 Number of shares	2022 Number of shares
At the beginning of the year	161,497,915	158,551,249
Issued during the year	19,685,253	2,946,666
Balance at the end of year	**181,183,168**	**161,497,915**

	2023 $	2022 $
At the beginning of the year	78,276,547	76,288,463
Issued during the year	82,526,297	1,988,084
Balance at the end of year	**160,802,844**	**78,276,547**

b. Costs of fund raising recognised

	2023 $	2022 $
At the beginning of the year	5,320,746	5,320,746
Incurred during the year	2,029,874	-
At the end of the year	**7,350,620**	**5,320,746**

17. ISSUED CAPITAL (CONTINUED)

c. Movements in ordinary share capital

	Number of shares	$
30 June 2021 – Opening balance	**158,551,249**	**76,288,463**
05-July-2021 - EIS withdrawals	22,935	13,145
16-July-2021 - Warrants exercise	1,132,075	747,170
31-July-2021 - Warrant reserve conversion		234,363
12-August-2021 - EIS withdrawals	118,815	76,217
19-August-2021 - EIS withdrawals	147,569	89,667
26-August-2021 - Warrants exercise	100,000	66,000
31-August-2021 - Warrant reserve conversion		20,701
01-September-2021 - EIS withdrawals	31,805	16,130
28-September-2021 - EIS withdrawals	8,423	4,058
30-September-2021 - EIS withdrawals	19,941	10,083
11-October-2021 - EIS withdrawals	204,223	130,718
12-October-2021 - EIS withdrawals	201,074	106,400
13-October-2021 - EIS withdrawals	67,806	36,842
18-October-2021 - EIS withdrawals	98,908	52,235
21-October-2021 - EIS withdrawals	45,000	21,213
22-October-2021 - EIS withdrawals	48,318	25,543
28-October-2021 - EIS withdrawals	96,907	45,554
03-November-2021 - EIS withdrawals	116,846	57,889
05-November-2021 - EIS withdrawals	20,249	9,530
17-November-2021 - EIS withdrawals	151,649	70,032
26-November-2021 - EIS withdrawals	17,342	8,175
30-November-2021 - EIS withdrawals	38,983	19,712
03-December-2021 - EIS withdrawals	76,010	38,072
24-February-2022 - EIS withdrawals	97,532	45,675
01-March-2022 - EIS withdrawals	28,173	13,213
07-April-2022 - EIS withdrawals	10,000	4,818
11-April-2022 - EIS withdrawals	6,083	2,727
21-April-2022 - EIS withdrawals	40,000	22,202
30 June 2022 – Closing Balance	**161,497,915**	**78,276,547**
01-July-2022 EIS withdrawals	47,122	23,832
08-July-2022 EIS withdrawals	9,630	4,915
08-July-2022 EIS withdrawals	19,237	8,624
15-July-2022 EIS withdrawals	21,896	11,942
22-August-2022 EIS withdrawals	6,000	2,855
15-September-2022 EIS withdrawals	9,000	4,594
13-October-2022 EIS withdrawals	10,000	4,701
14-October-2022 EIS withdrawals	55,046	25,817
21-October-2022 EIS withdrawals	118,739	63,505
21-October-2022 EIS withdrawals	92,192	42,920
24-October-2022 EIS withdrawals	11,990	5,375
24-October-2022 EIS withdrawals	20,000	8,966
25-October-2022 Investor placement	12,967,033	59,000,000
25-October-2022 Investor placement	219,781	1,000,004

17. ISSUED CAPITAL (CONTINUED)

c. Movements in ordinary share capital (continued)

	Number of shares	$
26-October-2022 EIS withdrawals	150,000	79,841
04-November-2022 EIS withdrawals	174,970	87,664
09-November-2022 EIS withdrawals	5,000	2,242
09-November-2022 EIS withdrawals	26,743	12,618
17-November-2022 SPP	5,092,397	21,590,881
28-November-2022 EIS withdrawals	20,000	9,198
28-November-2022 EIS withdrawals	18,000	8,743
28-November-2022 EIS withdrawals	8,000	3,586
09-December-2022 EIS withdrawals	72,947	68,246
09-December-2022 EIS withdrawals	38,312	42,562
09-December-2022 EIS withdrawals	21,709	24,509
09-December-2022 EIS withdrawals	17,062	27,775
12-December-2022 EIS withdrawals	5,855	30,505
12-December-2022 EIS withdrawals	1,945	10,133
13-December-2022 EIS withdrawals	2,000	897
13-December-2022 EIS withdrawals	20,000	9,715
19-December-2022 EIS withdrawals	30,926	30,440
21-December-2022 EIS withdrawals	8,801	17,158
10-January-2023 EIS withdrawals	133,186	64,228
13-January-2023 EIS withdrawals	21,000	10,344
23-February-2023 EIS withdrawals	1,568	8,169
23-February-2023 EIS withdrawals	5,437	28,327
23-February-2023 EIS withdrawals	1,393	7,258
23-February-2023 EIS withdrawals	52,120	45,685
23-February-2023 EIS withdrawals	2,500	1,174
03-April-2023 EIS withdrawals	48,768	21,863
31-May-2023 EIS withdrawals	44,075	49,606
31-May-2023 EIS withdrawals	46,873	21,922
16-June-2023 EIS withdrawals	6,000	2,958
30 June 2023 – Closing Balance	**181,183,168**	**160,802,844**

Ordinary Shares

Ordinary shares entitle the holder to participate in dividends and the proceeds on winding up of the Company in proportion to the number of and amounts paid on the shares held. On a show of hands, every holder of ordinary shares present at a meeting in person or by proxy, is entitled to one vote, and upon a poll each share is entitled to one vote. Ordinary shares have no par value and the Company does not have a limited amount of authorised capital.

Ordinary shares are classified as equity. Any transaction costs arising on the issue of ordinary shares are recognised directly in equity as a reduction of the share proceeds received.

17. ISSUED CAPITAL (CONTINUED)

Movements in ordinary share capital

ESS withdrawals
Employee Share Scheme (“ESS”) withdrawals are facilitated by transferring pre-allocated shares from the ESS trust to ordinary capital. In this way, the share-based payment reserve is reversed for the amount of the shares and the shares are transferred to the recipient. During the year ended 30 June 2023, $nil in shares were issued from the ESS trust (2022: $nil).

EIS withdrawals
Calix Officers & Employee Incentive Scheme (EIS) withdrawals are vested rights that have been exercised by the employee into ordinary capital. The share-based payment reserve is reversed for the amount of the shares and the shares are transferred to the recipient. During the year ended 30 June 2023, $935,412 in shares were issued (2022: $919,850).

Warrants exercised
During the year ended 30 June 2023, no warrants were exercised (2022: 1,232,076) by warrant holders at an exercise price of $0.66 per share which resulted in a new issue of no ordinary shares (2022: 1,232,076).

18. RESERVES

	June 2023 $	June 2022 $
Foreign currency translation reserve	288,598	(833,850)
Share-based payment reserve	4,591,350	2,786,145
Transactions with NCI reserve	21,281,752	21,281,751
Total reserves	**26,161,700**	**23,234,046**
Foreign currency translation reserve (FCTR)		
At the beginning of the year	**(833,850)**	**(104,976)**
Non-controlling interest movement of FCTR	16,819	-
Revaluations to foreign currency translation reserve	1,105,629	(728,874)
At the end of the year	**288,598**	**(833,850)**
Share-based payment reserve		
At the beginning of the year	**2,786,145**	**3,393,470**
Fair value of EIS rights granted	2,740,617	312,524
Fair value of EIS rights issued	(935,412)	(919,849)
At the end of the year	**4,591,350**	**2,786,145**
Warrant reserve		
At the beginning of the year	**-**	**255,064**
Conversion of warrants	-	(255,064)
At the end of the year	**-**	**-**
Transactions with NCI reserve		
At the beginning of the year	**21,281,751**	**-**
Divestment of investment in subsidiary	-	22,324,449
Transaction costs of divestment	1	(1,042,698)
At the end of the year	**21,281,752**	**21,281,751**

Foreign currency translation reserve

Exchange differences arising on translation of the foreign controlled entity are recognised in other comprehensive income as described in Note 1(h) and accumulated in a separate reserve within equity. The cumulative amount is reclassified to profit or loss when the net investment is disposed of.

Share-based payment reserve

The share-based payment reserve is used to recognise shares and rights earned by employees and officers as part of the ESS plan and the EIS. Shares issued through the ESS are valued at the grant date fair value of shares issued and vested to employees and directors. These reserves are reversed against share capital held by ESS plan when the shares vest. The rights which are as part of the EIS are valued using options valuation models which take into account vesting criteria, market price and the exercise windows. See Note 19 for more information on share-based payments.

18. RESERVES (CONTINUTED)

Warrant reserve

On 20 July 2018, the Company issued 2,359,155 warrants, which expired on 30 June 2022 at a strike price of $0.66 per share to financial advisers and joint lead managers as part of the non-cash costs for the IPO. These warrants were valued at $488,393 using a Black-Scholes pricing model (share price of $0.66 per share, an expected volatility of 100% of the underlying share, and an average risk-free rate of 2.74% for the term of the warrants).

The warrants were accounted for as equity (warrant reserve) in accordance with AASB 2 on the basis that the warrant strike price was not subject to any adjustments and conversion of shares is fixed. The warrants in the reserve were non-distributable and were to be transferred to share premium account upon the exercise of the warrants. Any balance of warrants reserve in relation to the unexercised warrants at expiry of the warrants period were transferred to accumulated profits.

19. SHARE BASED PAYMENTS

Calix Officers & Employees Incentive Scheme

EIS 1

On 18 April 2018 at an extraordinary general meeting, the shareholders approved a new EIS to operate once the Company is listed. The EIS (EIS 1) provides for the grant of rights and/or options to eligible officers and employees (as determined by the Board) and is intended to provide competitive, performance-based remuneration supporting the retention, incentive and reward functions of that remuneration and drive alignment with shareholders.

During the years ended 30 June 2020 to 30 June 2023, the Group recognised a share based payment expense related to the number of rights vesting and to be vested in connection with the fulfilment of the vesting conditions related to these financial periods as well as the forecasted value of those rights at their expected exercise date.

During the year, Calix granted a total of no new EIS 1 rights (2022: nil new rights) at an exercise price of $NIL. Of the total rights granted to date, 7,936,187 were exercisable at the end of the period (2022: 4,651,254), while nil were forfeited during the year (2022: NIL). 1,354,707 rights were exercised during the period (2022: 1,714,591) and no rights expired during the period (2022: NIL). The balance of rights at the end of the year is 4,313,485 (2022: 7,382,781). The fair value on issue of these rights is $2,164,260. An expense of $46,072 was recognised during the year in order to revalue the share-based payment reserve in accordance with the updated valuation model and fair value of the EIS rights.

EIS 2

On 29 September 2021 at a directors meeting, a second EIS scheme (EIS 2) was approved for the eligible officers and employees (as determined by the Board). During the years ended 30 June 2023, the Group recognised a share based payment expense related to the number of rights vesting and to be vested in connection with the fulfilment of the vesting conditions related to these financial periods as well as the forecasted value of those rights at their expected exercise date. For non senior leadership team employees the fair value of the options was determined to be the share price on the date the terms and conditions of the offer was given to the employees. For the senior leadership team a binomial option pricing model was used for valuing the options, as market based conditions attach to these option.

19. SHARE BASED PAYMENTS (CONTINUED)

The model used the following inputs to determine fair value as at 30 June 2023:

Valuation model inputs	Model Inputs
Grant date	30 June 2023
Exercise price	$NIL
Expiry date maximum	30 June 2028
Expected volatility	60%
Dividend yield	0%
Average risk-free interest rate	4.06%
30 day volume weighted average price (VWAP) at grant date	$6.01

During the year, Calix granted a total of 1,501,808 rights (2022: nil new rights) at an exercise price of $NIL. Of the total rights granted to date, 739,845 were exercisable at the end of the period (2022: NIL), while nil were forfeited during the year (2022: NIL). 51,355 rights were exercised during the period (2022: NIL) and no rights expired during the period (2022: NIL). The balance of rights at the end of the year is 658,020 (2022: NIL). The fair value on issue of these rights is $2,427,090. An expense of $2,694,546 was recognised during the year in order to revalue the share-based payment reserve in accordance with the updated valuation model and fair value of the EIS rights. Share options, across both EIS schemes, were exercised at a weighted average share price of $5.05 during the period.

20. LOSS PER SHARE

	June 2023 $	June 2022 $
a. Earnings used to calculate basic and diluted EPS from continuing operations	(23,415,054)	(16,507,819)
	Number	**Number**
b. Weighted average number of ordinary shares during the year used in calculating:		
Basic EPS*	173,973,451	160,437,064
Diluted EPS**	177,946,190	163,370,317
c. Earnings per share (cents per share)		
Basic EPS*	(13.46)	(10.29)
Diluted EPS**	(13.16)	(10.27)

*Basic EPS is calculated as the profit / (loss) attributable to equity holders of the Company, excluding any costs of servicing equity other than ordinary shares, divided by the weighted average number of ordinary shares outstanding during the financial year, adjusted for any bonus elements in ordinary shares issued during the year.

**Diluted earnings per share adjusts the figures used in the determination of basic earnings per share to take into account the after income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares arising from the employee share options.

21. FINANCIAL RISK MANAGEMENT

The Group's activities expose it to a variety of financial risks, including market risk (including foreign currency risk and interest rate risk), credit risk and liquidity risk. The Group's Treasury function is responsible for managing the liquidity requirements of the Group and mitigating these financial risks through continuous monitoring and evaluation.

The Group adheres to a set of policies approved by the Board of Directors, which provide written principles on liquidity risk, foreign exchange risk, interest rate risk, credit risk and the use of derivative financial instruments, as required, for hedging purposes. The Group does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes. There have been no changes to the Group's exposure to financial risks or the manner in which it manages and measures these risks from the prior year.

The Group holds the following financial instruments, all of which are measured at amortised cost:

	June 2023 $	June 2022 $
Financial assets		
Cash and cash equivalents	74,466,477	24,982,760
Current trade and other receivables	1,838,729	2,970,148
Non-current trade and other receivables	292,735	284,419
Total financial assets	**76,597,941**	**28,237,327**
Financial liabilities		
Trade and other payables	3,431,920	3,256,009
Current borrowings	318,294	863,489
Current lease liabilities	354,732	277,535
Non-current borrowings	7,372	15,261
Non-current lease liabilities	636,716	315,390
Total financial liabilities	**6,584,269**	**4,727,684**

(a) Credit risk

Exposure to credit risk relating to financial assets arises from the potential non-performance by counterparties of contract obligations that could lead to a financial loss to the Group.

Credit risk is managed through the maintenance of procedures ensuring to the extent possible, that customers and counterparties to transactions are of sound credit worthiness. Such monitoring is used in assessing receivables for impairments. Risk is also minimised through investing surplus funds in financial institutions that maintain a high credit rating, or in entities that the Audit and Risk Management Committee ("ARMC") has otherwise cleared as being financially sound.

Where the Group is unable to ascertain a satisfactory credit risk profile in relation to a customer or counterparty, the risk may be further managed through obtaining security by way of personal or commercial guarantees over assets of sufficient value which can be claimed against in the event of any default.

21. FINANCIAL RISK MANAGEMENT (CONTINUED)

Credit risk exposure
The maximum exposure to credit risk by class of recognised financial assets at balance date, excluding the value of any collateral or other security held, is equivalent to the carrying value of the trade and other receivables (net of any provisions).

There is no significant concentration of credit risk with any single counter party or group of counter parties.

Past due but not impaired
As at 30 June 2023, trade receivables of $28,958 were past due but not impaired (2022: $27,811). These relate to a number of independent customers for whom there is not recent history of default. The aging analysis of trade receivables is as below:

	June 2023 $	June 2022 $
Current	1,442,684	1,327,757
Less than 30 days overdue	54,508	77,606
Less than 60 days overdue	-	21,192
More than 60 days overdue	25,236	27,811
Total trade receivables	**1,522,428**	**1,454,366**

The other classes within trade and other receivables do not contain impaired assets and are not past due. Based on the credit history of these other classes, it is expected that these amounts will be received when due. The Group does not hold any collateral in relation to theses receivables.

(b) Liquidity risk
Liquidity risk arises from the possibility that the Group might encounter difficulty in settling its debts or otherwise meetings its obligations related to financial liabilities.

Prudent liquidity risk management implies maintaining sufficient cash and cash equivalents and the availability of funding through adequate amount of credit facilities to meet obligations when due.

Management monitors the Groups liquidity levels (comprising undrawn borrowing facilities (Note 13) and cash and cash equivalents (Note 6) on the basis of expected cash flows.

21. FINANCIAL RISK MANAGEMENT (CONTINUED)

The following table details the Group's remaining contractual maturity for its non-derivative financial assets and liabilities. The table has been drawn up based on the cash flows expected to continue to be received/paid by the Group.

2023	Within 1 year $	1 to 5 years $	Total contractual cash flows $	Total Carrying amount $
Financial assets				
Cash and cash equivalents	74,466,477	-	74,466,477	74,466,477
Deposits	-	292,735	292,735	292,735
Trade receivables	1,522,428	-	1,522,428	1,522,428
Other current receivables	316,301	-	316,301	316,301
Total Financial assets	**76,305,206**	**292,735**	**76,597,941**	**76,597,941**
Financial liabilities				
Trade and other payables	5,267,155	-	5,267,155	5,267,155
Current borrowings	318,294	-	318,294	318,294
Current lease liabilities	354,732	-	377,712	354,732
Non-current borrowings	-	7,372	7,372	7,372
Non-current lease liabilities	-	636,716	723,185	636,716
Total Financial liabilities	**5,940,181**	**644,088**	**6,693,718**	**6,584,269**
Net Financial Assets/(liabilities)	**70,365,025**	**(351,353)**	**69,904,223**	**70,013,672**

2022	Within 1 year $	1 to 5 years $	Total contractual cash flows $	Total Carrying Amount $
Financial assets				
Cash and cash equivalents	24,982,760	-	24,982,760	24,982,760
Deposits	1,166,049	284,419	1,450,468	1,450,468
Trade receivables	1,454,366	-	1,454,366	1,454,366
Other current receivables	349,733	-	349,733	349,733
Total Financial assets	**27,952,908**	**284,419**	**28,237,327**	**28,237,327**
Financial liabilities				
Trade and other payables	3,256,009	-	3,256,009	3,256,009
Current borrowings	863,489	-	863,489	866,528
Current lease liabilities	277,535	-	277,535	313,562
Non-current borrowings	-	15,261	15,261	15,261
Non-current lease liabilities	-	315,390	315,390	366,118
Total Financial liabilities	**4,397,033**	**330,651**	**4,727,684**	**4,817,478**
Net Financial Assets/(liabilities)	**23,555,875**	**(46,232)**	**23,509,643**	**23,419,849**

21. FINANCIAL RISK MANAGEMENT (CONTINUED)

(c) Interest rate risk

Exposure to interest rate risk relates to cash and cash equivalents and borrowings, details of which are set out in Notes 6 and 13.

Profit or loss is sensitive to higher/lower interest income from cash and cash equivalents and interest expenses on borrowings as a result of changes in interest rates. The following analysis shows the impact on post tax profit as a result of a movement in interest income and expense from variable interest rate deposit and borrowing facilities.

	Impact on post tax profit 2023 $	Impact on post tax profit 2022 $
Increase by 100 basis points	220,998	43,801
Decrease by 100 basis points	(220,998)	(43,801)

(d) Foreign exchange risk

Exposure to foreign exchange risk may result in the fair value of future cash flows of a financial instrument fluctuating due to movement in foreign exchange rates of currencies in which the Group holds financial instruments other than the Australian Dollar (AUD) functional currency of the Group. With instruments being held by overseas entities, fluctuations in US Dollars (USD), UK Pound Sterling (GBP) and Euro (EUR) may impact on the Group's financial results unless those exposures are appropriately hedged.

The following table shows the foreign currency risk on the significant financial assets and liabilities held in denominations of currencies other than the functional currency of the Group.

	June 2023 USD $	June 2022 USD $
Cash	721,347	356,941
Trade and other receivables	1,137,109	538,164
Trade and other payables	(1,301,928)	(341,169)
Foreign exchange exposure	**556,528**	**553,936**
	GBP £	**GBP £**
Cash	74,717	211,259
Trade and other receivables	-	(347,961)
Trade and other payables	(23,198)	337,893
Foreign exchange exposure	**51,519**	**201,191**
	EUR €	**EUR €**
Cash	10,200,475	14,039,962
Trade and other receivables	290	(485,771)
Trade and other payables	(57,221)	156,481
Foreign exchange exposure	**10,143,544**	**13,710,672**

21. FINANCIAL RISK MANAGEMENT (CONTINUED)

Sensitivity analysis

The table below illustrates the sensitivity of the Group's exposures to changes in USD, GBP and EUR. The table indicates the impact on how profit and equity values reported at balance date would have been affected by changes in the relevant risk variable that management considers to be reasonably possible.

	June 2023 $	June 2022 $
+/- 5% in AUD/USD	83,941	80,409
+/- 5% in AUD/GBP	9,813	35,477
+/- 5% in AUD/EUR	1,663,149	2,080,843

22. CAPITAL MANAGEMENT

The Group's objectives when managing capital are to:

- Safeguard its ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders, and
- Maintain an optimal capital structure to reduce the cost of capital.

	June 2023 $	June 2022 $
Net debt	325,666	878,750
Total equity	103,726,554	43,488,352
Net debt to equity ratio	>1%	2%

23. SUBSIDIARIES

The consolidated financial statements incorporate the assets, liabilities and results of the following subsidiaries in accordance with the accounting policy described in Note 1 (a):

Subsidiaries	Country of incorporation	% owned 2023	% owned 2022
Calicoat Pty Ltd	Australia	100%	100%
Calix Lithium Pty Ltd	Australia	100%	-
Calix Technology Pty Ltd	Australia	100%	100%
MS Minerals Pty Ltd	Australia	100%	100%
LEILAC Limited*	UK	93%	93%
Millennium Generation Limited	UK	93%	93%
Calixhe SA	Belgium	96%	96%
Calix Europe Sarl	France	93%	93%
Calix (North America) LLC	USA	100%	100%
Inland Environmental Resources, Inc.	USA	100%	100%
LEILAC US, Inc	USA	93%	-
Westside Environmental Resources LLC.**	USA	(1)100%	(1)100%

* LEILAC Limited was renamed during the year from Calix (Europe) Limited.

**Westside Environmental Resources. commenced operations in July 2020, see below for further information.

(1) Westside Environmental Resources LLC ("WER") was established as a structured vehicle to serve a single customer of the US business. The entity was established by the Group and structured to ensure that the Group was the sole supplier of materials to WER under an exclusive toll processing agreement.

Consolidation accounting policies

Business combinations occur where an acquirer obtains control over one or more businesses and results in the consolidation of assets and liabilities. A business combination is accounted for by applying the acquisition method, unless it is a combination involving entities or businesses under common control. The acquisition method requires that for each business combination one of the combining entities must be identified as the acquirer (i.e. parent entity).

The business combination will be accounted for as at the acquisition date, which is the date that control over the acquiree is obtained by the parent entity. At this date, the parent shall recognise, in the consolidated accounts, and subject to certain limited exceptions, the fair value of the identifiable assets acquired and liabilities assumed. In addition, contingent liabilities of the acquiree will be recognised where a present obligation has been incurred and its fair value can be reliably measured.

The acquisition may result in the recognition of goodwill or a gain from a bargain purchase. The method adopted for the measurement of goodwill will impact on the measurement of any non-controlling interest to be recognised in the acquiree where less than 100% ownership interest is held in the acquiree.

The acquisition date fair value of the consideration transferred for a business combination plus the acquisition date fair value of any previously held equity interest shall form the cost of the investment in the separate financial statements.

23. SUBSIDARIES (CONTINUED)

Consideration may comprise the sum of the assets transferred by the acquirer, liabilities incurred by the acquirer to the former owners of the acquiree and the equity interest issued by the acquirer. Included in the measurement of consideration transferred is any asset or liability resulting from a contingent consideration arrangement. Any obligation incurred relating to contingent consideration is classified as either a financial liability or equity instrument, depending upon the nature of the arrangement. All transaction costs incurred in relation to the business combination are expensed to the consolidated income statement.

24. JOINT ARRANGEMENTS

The Company holds a 45% interest in the "Midstream UJV". The unincorporated joint venture agreement requires a supermajority vote, being 75% of the total participating interest, for all major joint arrangement decisions. These include setting budgets, work programs, manager or auditor appointment and other significant actions. The two joint venturers own the assets of the partnership as tenants in common and are jointly and severally liable for the liabilities incurred by the partnership. The entity is therefore classified as a joint operation and the consolidated entity recognises its share of all jointly held assets and liabilities, and their associated revenues and expenses. See notes 10 & 11 for further details.

25. PARENT ENTITY FINANCIAL INFORMATION

The individual financial statements for the parent entity show the following aggregate amounts:

	June 2023 $	June 2022 $
Current assets	66,846,783	5,589,235
Total assets	**99,201,484**	**32,775,869**
Current liabilities	8,404,464	4,076,493
Total liabilities	**8,973,798**	**4,625,292**
Equity		
Issued capital	153,452,224	72,955,801
Reserves	3,548,652	1,743,447
Accumulated losses	(66,773,189)	(46,548,671)
Total equity	**90,227,686**	**28,150,577**
Loss for the year	(20,224,518)	(12,062,804)
Total comprehensive (loss) for the year	**(20,224,518)**	**(12,062,804)**

Contingent liabilities

The parent entity and other controlled group companies had no contingent liabilities as at 30 June 2023 (2022: $NIL).

25. PARENT ENTITY FINANCIAL INFORMATION (CONTINUED)

Capital commitments
The parent entity and other controlled group companies had no capital commitments for property, plant and equipment at as 30 June 2023 (2022: $NIL).

Parent Company Investment in Subsidiary Companies
Investments in subsidiaries are carried at cost in the individual financial statements of Calix Limited. An impairment loss is recognised whenever the carrying amount of the investment exceeds its recoverable amount. Recoverable amount is the higher of value in use and fair value less costs of disposal. The carrying value of the parent's investment in subsidiaries as at 30 June 2023 was $12,246,889 (2022: $10,517,207).

26. RELATED PARTY TRANSACTIONS

Transactions between related parties are on normal commercial terms and conditions no more favourable to those available to other parties unless otherwise stated.

Ultimate parent company
As at 30 June 2023, Calix Limited had been loaned funds by Leilac Limited in the amount of $1,857,604 (2022: loaned to Leilac Limited $922,261).

As at 30 June 2023, Calix Limited had loaned funds to Calix North America LLC in the amount of $116,001 (2022: $91,709).

Calicoat Pty Limited ("Calicoat") has not traded since its inception. As at 30 June 2023, Calix Limited had loaned funds to Calicoat in the amount of $1,977 (2022: $1,977).

As at 30 June 2023, Calix Limited had loaned funds in the amount of $3,372,037 to MS Minerals (2022: $2,407,383).

As at 30 June 2023, Calix Limited had been loaned funds by Calix Europe Sarl in the amount of $1,836,432 (2022: loaned to Calix Europe Sarl $51,230).

As at 30 June 2023, Calix Limited loaned funds to Inland Environmental Resources Inc in the amount of $3,238,200 (2022: $1,763,438).

As at 30 June 2023, Calix Limited had been loaned funds by Leilac US Inc in the amount of $178,065.

Calix Technology Pty Ltd and Calix Lithium Pty Ltd have not traded since its inception.

None of the above loans are secured, nor guarantees given or received. They are repayable on demand and are interest free between all parties except for the funds loaned by Leilac Limited which attracted an interest rate of 7% during the year.

There were no provisions for doubtful debts related to any of the outstanding related party loans above, nor any expense recognised during the period for bad or doubtful debts due from related parties.

The Group had loans to two of its directors during the year, these are disclosed in the "Loans given to key management personnel" section of the remuneration report above.

27. AUDITORS REMUNERATION

During the year ended 30 June 2023, the following fees were paid or payable for services provided by the auditor of the Group, its related practices and non-related audit firms:

	June 2023 $	June 2022 $
Audit and review of financial statements		
BDO Australia	223,527	162,027
Other services		
Transfer pricing services	29,348	18,081
Total remuneration for services	**252,875**	**180,108**

28. KEY MANAGEMENT PERSONNEL (KMP) COMPENSATION

	June 2023 $	June 2022 $
Short-term employee benefits	2,538,564	2,306,596
Post-employment benefits	225,585	200,435
Share based payments	717,194	534,486
Total	**3,481,343**	**3,041,517**

Further information regarding the remuneration policies of the Group and KMP compensation can be found in the Remuneration Report on page 80 of the Annual report.

29. CASH FLOW INFORMATION

Reconciliation of cash flows from operating activities with loss after income tax:

	June 2023 $	June 2022 $
Loss after income tax	(23,415,054)	(16,507,819)
Add back:		
Depreciation, amortisation and impairment expense	5,860,772	4,041,497
Interest classified as financing cash flows	40,311	45,457
Foreign exchange losses/(gains)	410,102	(814,247)
Share based payment expense	2,740,617	312,524
Changes in balance sheet items		
(Increase)/decrease in trade & other receivables	(8,243,248)	6,486,960
(Increase) in inventory	(937,697)	(1,224,106)
Increase/(Decrease) in trade and other payables	1,995,694	(123,921)
Accrual of provisions	460,079	244,364
Increase in deferred revenue	3,911,182	2,837,741
(Decrease) in deferred tax liabilities	(79,359)	(205,011)
Net cash used in operating activities	**(17,256,601)**	**(4,906,561)**

30. CONTINGENT LIABILITIES

There are no known contingent liabilities as at 30 June 2023 and 30 June 2022.

31. NON-CONTROLLING INTERESTS

(a) Disposals to non-controlling interests

On 15 September 2021 global decarbonisation investor Carbon Direct Capital Management LLC ("Carbon Direct") invested €15m for a 6.98% equity stake in Calix (Europe) Limited, a subsidiary of Calix Limited. This investment was made to aid the acceleration of the development and deployment of the Group's LEILAC technology for the decarbonisation of lime and cement industries. Carbon Direct will advise on areas including capital markets, regulations, commercial and technical development and help to scale this business line.

The Group applies a policy of treating transactions with non-controlling interests as transactions with equity owners of the Group. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is deducted from equity. For disposals to non-controlling interests, differences between any proceeds received and the relevant share of non-controlling interests are recorded in equity. As a result, the difference between $22,845,374 AUD received (net of $1,042,697 transaction costs) and $1,669,052 related to the share of Carbon Direct is accounted for as equity reserves, amounting to $21,176,322 as at 30 June 2023 in the statement of changes in equity.

(b) Equity - non-controlling interests

	June 2023	June 2022
	$	$
Reserves	1,461,647	1,478,250
Retained profit	(229,179)	(169,576)
	1,232,468	**1,308,674**

Non-controlling interests in the results and equity of subsidiaries are shown separately in the statement of profit or loss and other comprehensive income, statement of changes in equity and statement of financial position respectively. Carbon Direct's share of the loss since disposal, $381,936 (2022: $182,097), is disclosed as part of non-controlling interest in the income statements.

32. AFTER BALANCE DATE EVENTS

On 2 August, 2023, the Group announced that the joint venture project with Pilbara Minerals Limited (ASX:PLS) to construct a ~3000 tonne per annum lithium phosphate production facility had passed its final investment decision. The project involves the commitment by the Group of A$17.5m in capital to construct the facility at Pilbara Mineral's Pilgangoora mine site in Western Australia for a 45% share of the joint operation. Calix's contribution will be capped at $17.5m of the estimated $104.9m construction costs (except for cost overruns which will be shared by both parties).

No other matters or circumstances have arisen since the end of the year which significantly affected, or may significantly affect, the operations of the Group, the results of those operations, or the state of affairs of the Group in future years.

DIRECTORS' DECLARATION

1. The directors of the Company declare that: The financial statements, comprising the statement of comprehensive income, statement of financial position, statement of cash flows, statement of changes in equity, and accompanying notes, are in accordance with the *Corporations Act 2001* and:

    a. comply with Accounting Standards and the Corporations Regulations 2001; and
    b. give a true and fair view of the consolidated entity's financial position as at 30 June 2023 and of its performance for the year ended on that date.

2. The Company has included in the notes to the financial statements an explicit and unreserved statement of compliance with International Financial Reporting Standards.

3. In the directors' opinion, there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

4. The directors have been given the declarations required by section 295A.

This declaration is made in accordance with a resolution of the Board of Directors and is signed for and on behalf of the directors by:

P J Turnbull AM
Chair
Sydney
24 August 2023

Tel: +61 2 9251 4100
Fax: +61 2 9240 9821
www.bdo.com.au

Level 11, 1 Margaret St
Sydney NSW 2000
Australia

INDEPENDENT AUDITOR'S REPORT

To the members of Calix Limited

Report on the Audit of the Financial Report

Opinion

We have audited the financial report of Calix Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 30 June 2023, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the financial report, including a summary of significant accounting policies and the directors' declaration.

In our opinion the accompanying financial report of the Group, is in accordance with the *Corporations Act 2001*, including:

(i) Giving a true and fair view of the Group's financial position as at 30 June 2023 and of its financial performance for the year ended on that date; and

(ii) Complying with Australian Accounting Standards and the *Corporations Regulations 2001*.

Basis for opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the Financial Report* section of our report. We are independent of the Group in accordance with the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the *Corporations Act 2001*, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	*How the matter was addressed in our audit*
Accounting for the unincorporated joint venture with Pilbara Minerals As detailed in Note 11 and Note 24 to the financial statements, Pilbara Minerals (PLS) and Calix have executed an unincorporated joint venture (UJV) agreement for the development of a Demonstration Plant at the Pilgangoora Project with the aim of producing lithium salts via an innovative midstream value-added refining process utilising Calix's patented calcination technology, as well as future commercialisation of the process. This unincorporated joint venture is considered a material transaction during the period. In our view, the accounting for the transaction is significant to our audit as the Group might inappropriately account for the joint venture, and the accounting policies and presentation of the arrangement may be incorrect.	The procedures performed in response to this key audit matter included, but were not limited to: • Obtaining and reviewing the unincorporated joint venture agreement; • In consultation with BDO IFRS technical specialists, evaluating Calix's assessment of the appropriate accounting treatment under AASB 10 *Consolidated Financial Statements* and AASB 11 *Joint Arrangements*; • Evaluating the Calix's assessment of the carrying value of the investment in the joint venture; and • Performing substantive testing over the associated transactions during the year and ensuring the treatment is consistent with the application of the Australian Accounting Standards.
Research and development (R&D) tax receivable As detailed in Note 3 and Note 7 to the financial statements, the Group recognises a material balance of R&D incentive income and receivable. Eligibility of the R&D incentive and accuracy of calculation was considered a key audit matter, together with ensuring it was appropriately accounted for in accordance with the requirements of AASB 120 Accounting for Government Grants and Disclosure of Government Assistance. We have focused on this area as a key audit matter due to the amounts involved being material, the conditions and requirements for eligibility, and the inherent subjectivity associated with the calculation of R&D tax incentives.	The procedures performed in response to this key audit matter included, but were not limited to: • In consultation with BDO's R&D tax expert, evaluated and assessed the reasonableness and eligibility criteria of the R&D calculation to consider the recoverability of the claim. • Obtained and reviewed the R&D tax rebate receivable calculation and considered the inputs and assumptions included within the calculations; and • Performed analytical procedures over the key categories of the R&D calculation, comparing against prior years and expectations developed from discussing with management and supporting information.
Share based payments As detailed in Note 19 of the financial statements, the Group has Employee Incentive Schemes in place which result in the recognition of share-based payments. During the year ended 30 June 2023, the Group issued share options under a second EIS scheme (EIS 2). The Group uses assumptions in relation to current and future market and non-market conditions. Due to the complex and judgemental estimates used in determining the value of the share-based payment expense for the year, we consider this to be a key audit matter.	The procedures performed in response to this key audit matter included, but were not limited to: • Reviewing relevant supporting documentation to obtain an understanding of the contractual nature and terms and conditions of the share-based payment arrangements; • Reviewing management's determination of the fair value of the share-based payments granted, considering the appropriateness of the valuation models used and assessing the valuation inputs;

- In consultation with BDO's valuation specialist, assess the reasonableness of management's valuation of the fair value of options with market vesting conditions;
- Assessing management's determination of achieving non-market vesting conditions;
- Assessing the appropriate allocation of the share-based payment expense over the relevant vesting periods; and
- Assessing the adequacy of the related disclosures in the financial report.

Other information

The directors are responsible for the other information. The other information comprises the information in the Directors' Report (excluding the audited Remuneration Report section) for the year ended 30 June 2023, but does not include the financial report and the auditor's report thereon, which we obtained prior to the date of this auditor's report, and the Annual Report to Shareholders, which is expected to be made available to us after that date.

Our opinion on the financial report does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

When we read the Annual Report to Shareholders, if we conclude that there is a material misstatement therein, we are required to communicate the matter to the directors and will request that it is corrected. If it is not corrected, we will seek to have the matter appropriately brought to the attention of users for whom our report is prepared.

Responsibilities of the directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website (http://www.auasb.gov.au/Home.aspx) at: https://www.auasb.gov.au/admin/file/content102/c3/ar1_2020.pdf

This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report under the heading 'Remuneration Report' for the year ended 30 June 2023.

In our opinion, the Remuneration Report of Calix Limited, for the year ended 30 June 2023, complies with section 300A of the *Corporations Act 2001*.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the *Corporations Act 2001*. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

BDO Audit Pty Ltd

BDO

Elysia Rothwell
Director

Sydney, 24 August 2023

Shareholder information

Additional information required by Australian Stock Exchange Listing Rules is as follow. This information is current as at 21 August 2023.

(a) Distribution schedules of shareholders

Holding ranges	Number of holders	Total units	%
1 – 1,000	3,294	1,392,214	0.77
1,001 – 5,000	2,294	5,990,412	3.31
5,001 – 10,000	685	5,137,462	2.83
10,001 – 100,000	854	22,854,176	12.61
100,001 – 9,999,999,999	107	145,858,527	80.48
Totals	**7,234**	**181,232,791**	**100.00**

There were 2,062 holders of less than marketable parcels of ordinary shares (minimum $500 parcels at $4.44 per share, and 445,237 units)

(b) Class of shares and voting rights

All shares are ordinary shares. Each ordinary share is entitled to one vote when a poll is called, otherwise each member present at a meeting or by proxy has one vote on a show of hands.

(c) Substantial shareholders

The names of the substantial shareholders listed in the Company's register as at 21 August 2023 were:

	Number of Ordinary shares
AustralianSuper Pty Ltd	18,774,306
Nicholas Merriman & associates	10,966,455
Tiga Trading Pty Ltd and Thorney Technologies Ltd	9,669,024

(d) Twenty largest register holders – ordinary shares

Balance as at 21 August 2023	Number of Ordinary Shares	%
J P MORGAN NOMINEES AUSTRALIA PTY LIMITED	37,461,133	20.670%
HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	20,484,349	11.303%
UBS NOMINEES PTY LTD	10,915,798	6.023%
CITICORP NOMINEES PTY LIMITED	9,357,470	5.163%
NICHOLAS MERRIMAN	8,108,286	4.474%
MR PAUL CROWTHER	6,444,063	3.556%
BNP PARIBAS NOMS PTY LTD <DRP>	4,412,881	2.435%
MARK GEOFFREY SCEATS <SCEATS SUPERANNUATION FUND>	2,847,344	1.571%
DR MARK GEOFFREY SCEATS	2,632,119	1.452%
PIGEONS SUPER PTY LIMITED <THE HODGSON FAMILY S/F A/C>	2,196,597	1.212%
NATIONAL NOMINEES LIMITED	2,139,393	1.180%
BNP PARIBAS NOMINEES PTY LTD <AGENCY LENDING DRP A/C>	2,096,270	1.157%
UBS NOMINEES PTY LTD	1,773,836	0.979%
MR JACOB SHIELDS ULRICH	1,533,133	0.846%
BNP PARIBAS NOMINEES PTY LTD HUB24 CUSTODIAL SERV LTD <DRP A/C>	1,324,244	0.731%
PHIL HODGSON	1,311,148	0.723%
JENEIL SUPER PTY LTD <JENEIL SUPER FUND A/C>	1,266,387	0.699%
MR JOHN ANDREW HAMILTON	1,223,639	0.675%
TURNBULL SUPER FUND PTY LTD <THE TURNBULL SUPER FUND A/C>	1,133,789	0.626%
SHAREHOLDER SERVICES PTY LTD	1,098,091	0.606%
Total	**119,759,970**	**66.081%**

Glossary

Term	Meaning
Aluminium (Al)	Chemical element with the symbol Al
Anode	The negative electrode of a battery
Antimicrobial	Antimicrobial products kill or slow the spread of microorganisms, including bacteria, viruses and fungi.
AMR	Antimicrobial resistance – the development of resistance in bacteria, viruses, fungi and parasites to antimicrobials.
ARENA	The Australian Renewable Energy A
ASX	The Australian Securities Exchange
APVMA	Australian Pesticides and Veterinary Medicines Authority
BATMn	Calix's core kiln technology – electrified – for battery and catalyst materials production
BOD	Basis of Design
Calcium (Ca)	Chemical element with the symbol Ca
Carbonation	The capture of carbon dioxide by contacting with lime (calcium oxide), to form limestone (calcium carbonate)
Cathode	The positive electrode of a battery
CCS	Carbon Capture and Storage
CCUS	Carbon Capture, Utilisation and Storage
CO_2	Carbon Dioxide
Copper (Cu)	Chemical element with the symbol Cu
CRC	Cooperative Research Centre – Australian Government supported industry-led collaborative research centres
CRC SAAFE	Cooperative Research Centre Solving Antimicrobial Resistance in Agribusiness, Food, and Environments
DAC	Direct Air Capture – the extraction of carbon dioxide directly from the atmosphere
EAF	Electric arc furnace – a furnace that heats material by means of an electric arc between two electrodes
EAP	Employee Assistance Program
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
Electrode	The material that stores the lithium ions in a charged (anode) or discharged (cathode) state in a lithium-ion battery
Electrolyte	The medium that allows ions to move between the battery electrodes, via the separator
ESG	Environment, Social and Governance considerations
FEED	Front-End Engineering Design
FID	Final Investment Decision
Fines	Small particles, which are usually very difficult to handle in kilns etc as they simply get blown out
Green Hydrogen	Hydrogen that is produced from an electrolyser using renewable energy
Goethite	A mineral that is an ore of iron
HBI	Hot Briquetted Iron – "bricks" of relatively high purity iron ready for steel-making
H-DRI	The process of reducing iron ore to metallic iron with hydrogen as the reductant
Hematite	A mineral that is an ore of iron
HILT CRC	Heavy Industry Low-carbon Transition Cooperative Research Centre
HPO	"Hierarchical Porous Onion" - a crystal structure of lithium manganese oxide resembling tiny onion layers – allowing both strength and easier passage of lithium ions
Hydrometallurgy	A metal recovery method used to obtain metals from ores and waste materials
Iron	The chemical element, represent by "Fe" on the periodic table
Iron Ore	Iron oxide mixed with various other minerals, as mined and "pre-processed" (purified) as best as possible
Leilac	Calix's core kiln technology for Low Emissions Intensity Lime and Cement production with CO_2 capture
LFP	Lithium Iron Phosphate – a battery cathode material
LHM	Lithium Hydroxide Monohydrate – used in the production of cathode active materials for lithium-ion batteries
Lithium (Li)	Chemical element with the symbol Li
Lithium-phosphate / Lithium Salt / "Mid-Stream" Lithium	A form of lithium that is high in lithium content, to be shipped and utilised by battery producers
Lithium ion	The ionic form of lithium (Li+) – a positively charged atom of lithium
LMO	Lithium Manganese Oxide – a battery cathode material
LNMO	Lithium Nickel Manganese Oxide – a battery cathode material
LTO	Lithium Titanium Oxide – a battery anode material
Manganese Carbonate (MnCO3)	Form of manganese used mainly in agriculture as a fertiliser supplement
Magnesium (Mg)	Chemical element with the symbol Mg
Manganese (Mn)	Chemical element with the symbol Mn
Magnetite	A mineral that is an ore of iron
Metallisation	The conversion of an oxide to a metal
Metallurgical Coal	Very high carbon coal
MgO	Magnesium Oxide
MHL	Magnesium Hydroxide Liquid
MOU	Memorandum of Understanding
Nanoporous	A material with a regular, porous structure, with a pore size generally less than 100 nanometres.
Nickel (Ni)	Chemical element with the symbol Ni

NCA	A battery cathode material made from nickel, aluminium and cobalt
NCM, or NMC	A battery cathode material made from nickel, manganese and cobalt
Pelletisation	The formation of pellets from finer materials to aid in handling
Potassium (K)	Chemical element with the symbol K
Process emissions	Process emissions are inherent to the chemical reaction and are released directly and unavoidably from the chemical processing of raw material. They are distinct from energy related emissions that may result from the consumption of fuel to heat the reaction.
SDGs	The UN's Sustainable Development Goals or Global Goals are a collection of seventeen interlinked objectives designed to serve as a "shared blueprint for peace and prosperity for people and the planet, now and into the future."
Separator	The barrier between the anode and the cathode that prevents them touching, inside the battery
Siderite	A mineral that is an ore of iron
SLP	Single layer pouch cells – a soft battery design where most of the cell components are enclosed in a aluminium-coated plastic film.
Sodium (Na)	Chemical element with the symbol Na
Spodumene	A high lithium-containing ore, and the source of the majority of the world's lithium supply
α-Spodumene	A tight Li-crystal formation, from which extraction of Li is difficult
β-Spodumene	A loose Li-crystal formation, from which extraction of Li is much easier than the alpha-form
Reduce / Reduction	The process by which oxygen is removed
Reductant	A material that, through its chemical properties, carries out reduction
RDF	Refuse-derived fuel – a fuel produced from various types of waste
Sponge Iron	Iron Ore that has been reduced (had the oxygen removed)
Steel	Mainly iron, with some carbon and other trace metals such as nickel, manganese etc depending upon the grade of steel being made
Sulphur (S)	Chemical element with the symbol S
Tpa	Tonnes per annum
UNGC	The United Nations Global Compact, the world's largest corporate sustainability intiative
Wh / kWh	Watt-hours / kilowatt-hours - a measure of energy
ZESTY	Calix's Zero Emissions Steel TechnologY

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