

16 November 2023

Chair's address to the 2023 Calix Limited Annual General Meeting

Sydney, Australia | 16 November 2023

I would like to welcome everyone to Calix's 2023 Annual General Meeting.

We continue with our hybrid meeting format and are pleased to have shareholders joining us both in person and virtually.

As always, our goal is to make the meeting as interactive as possible for shareholders. The Lumi platform will enable you to make comments, ask questions and vote, whether you are here in person or attending virtually.

I would like to introduce the board and management team attending the meeting here with me today:

- 1. Helen Fisher, Non-Executive Director;
- 2. Alison Deans, Non-Executive Director;
- 3. Phil Hodgson, Managing Director and CEO;
- 4. Mark Sceats, Executive Director and Chief Scientist; and
- 5. Darren Charles, our Company Secretary and Chief Financial Officer.

I would also like to welcome Calix's auditor, Elysia Rothwell of BDO.

Global tailwinds

As Akshat Rathi states in the opening to his new book 'Climate Capitalism', "it is now cheaper to save the world than destroy it."

It is estimated that if average temperatures rise by 2 rather than 1.5 degrees Celsius above preindustrial levels, the global economy could be US\$100 trillion poorer.²

Limiting warming to 1.5 degrees Celsius requires reaching net-zero emissions globally by 2050.

This means very deep industrial decarbonisation is required. It means green cement. Green iron and steel. Stable and sustainable supplies of critical minerals. Sustainable transport fuels. And it means removing legacy emissions from the atmosphere.

The past year has brought into sharp focus the urgency with which the world must act.

2023 marked the hottest northern hemisphere summer in recorded history.³ Extreme heat, fires, storms and floods raged from Hawaii and Canada to Europe, North Africa, the Middle East and Asia. What were considered extremes are now becoming the norm.

¹ Climate Capitalism: Winning the Global Race to Zero Emissions

² Marshall Burke, W. Matthew Davis and Noah S. Diffenbaugh, 'Large Potential Reduction in Economic Damages under UN Mitigation Targets', *Nature 557* (2018): 549-53

³ Summer 2023: the hottest on record. Copernicus Climate Change Service (C3S) September 2023.



Our willingness to invest is also apparent. Despite ongoing inflationary pressures and global conflicts, more than US\$35 trillion worth of assets are now aligned with environmental, social and governance goals.⁴

This is a hard number to comprehend. Put another way, over a third of *all* invested assets are now ESG compliant, and this capital is increasingly working in sync with government policy to drive the massive decarbonisation needed across the world's economies.

This year, in Europe, the Carbon Border Adjustment Mechanism and Net-Zero Industry Act were introduced. Coupled with the European Emissions Trading System – in which prices reached over 100 Euro per tonne of CO₂ this year – these policies promise to provide the economic framework and supporting infrastructure required to decarbonise even the hardest to abate of sectors.

In the US, the Inflation Reduction Act has turbocharged climate action. A tax incentive of US\$85 per tonne of captured CO₂ is reigniting interest in industrial carbon capture solutions. An incentive of US\$180 per tonne of CO₂ for Direct Air Capture, in addition to the US\$1.2 billion Direct Air Capture Hubs Program has led to rapid development of new approaches to carbon dioxide removal.

Here in Australia, the Safeguard Mechanism has introduced clear decarbonisation targets and carbon prices for our biggest industrial emitters.

All of this adds up to ever strengthening geopolitical and macroeconomic tailwinds for decarbonisation. And for Calix.

Focus and strategy

Calix's platform technology has the potential to deliver economically viable and competitive solutions to decarbonise a range of industries, including cement and lime, iron and steel, alumina, lithium and other critical minerals, as well as more sustainable solutions for water, agriculture and batteries.

When you have so many opportunities to develop new products and processes from one core platform technology you must be disciplined with priorities and discretionary capital.

Calix is both. Quite simply, we concentrate on, and prioritise the applications and opportunities that we believe will create the best outcome for shareholders over an acceptable time period and with the best use of capital.

Our capital light commercialisation strategy, based on licensing, joint ventures and spin-outs, is providing the focus, flexibility and speed to support our ambitions and potential. This model also enables us to minimise any further capital required by Calix at the consolidated level, as opposed to the various subsidiary businesses being built.

Flexible funding options for each subsidiary business aim to accelerate commercialisation. They enable investment in a focused and specialist team, and the development of application specific technology. A licence agreement with each subsidiary will continue to deliver royalty income to Calix regardless of Calix's future shareholding in each relevant entity.

Our various target applications are guided by a focus on:

• a significant global challenge consistent with our purpose;

⁴ There's \$35 Trillion Invested in Sustainability, but \$25 Trillion of That Isn't Doing Much. Bloomberg. 18 August 2021



- applications that have the potential for significant value creation in large addressable markets; and
- exploiting the core platform technology to sustainable competitive advantage.

Ultimately, it is about identifying where we can deliver the greatest environmental and shareholder impact.

This year, we have continued to focus our efforts on our key priority applications, and our key projects within them, that is:

- Leilac, and the Leilac-2 project;
- Green iron and steel and designing our ZESTY demonstration plant; and
- Our joint venture with Pilbara Minerals to produce sustainable lithium here in Australia.

Leilac is of course the first example of our capital-light, licensing strategy in action.

A little over 2 years ago, Carbon Direct Capital Management invested 15 million Euro for a 7% stake in Leilac. Since then, Leilac has grown from 8 to 50 employees across 12 countries, and from 21 to 76 projects around the world. It has signed global and perpetual licence agreements with Heidelberg Materials and Heirloom Carbon Technologies, with further agreements under negotiation with Cemex and others.

Our significant progress is a result of investing in a single-focused team in Australia and around the world. And they are just getting started.

Financial strength

Calix's strong balance sheet, revenue and margin growth are providing the platform required to pursue our commercialisation opportunities.

In the 2023 financial year, Calix achieved revenue of \$29.6 million with a gross margin of 33 per cent, up 42 per cent and 18 per cent respectively from the previous year.

Investment in our research, development and commercialisation activity was partially offset by \$10.7 million in grants and tax rebates.

Calix concluded the financial year with essentially no debt and \$74.5 million cash on hand and a clear prioritisation of high value growth projects. This balance sheet strength enables us to grow and support the enhanced capability needed to deliver our current project commitments.

FY23 update

Following our substantive agenda items for the meeting, I will ask Calix Managing Director, Phil Hodgson, to provide an update on our progress towards our priorities for the 2024 financial year. First, however, I'd like to provide a brief update on our activity in the 2023 financial year.

Leilac - Low Emissions Intensity Lime and Cement

As mentioned earlier, Calix's CO₂ mitigation business, Leilac, has undergone significant growth in depth and breadth of the team to support our continuing efforts to scale and deploy this technology around the world.

The growth is also reflective of the increasing demand for decarbonisation solutions from the cement and lime industry, driven in particular by regulatory incentives in Europe and the US.



The Leilac-2 project remains the primary focus for Leilac. Following a value engineering phase, a lighter and simplified modular unit has been designed and approved that can be replicated and scaled to a cement plant of any size.

The procurement of long lead equipment items for Leilac-2 is underway, and the commencement of civil works, which was delayed by about 3 months due to permitting, has now commenced. Commissioning and testing is expected to start by March 2025.

Key commercialisation milestones for Leilac included signing a global licence agreement with Heidelberg Materials, and most recently, a global licence agreement with Direct Air Capture company, Heirloom.

The partnership with Heirloom aims to integrate Leilac's electric kiln technology for lime decarbonisation into Heirloom's lime-based Direct Air Capture process for removal of atmospheric CO₂.

Heirloom aims to capture one billion tonnes of CO₂ from the atmosphere by 2035 and has achieved significant momentum and success to date.

Since signing an MOU in February 2023, Leilac and Heirloom have conducted successful research, development and engineering programs that are now informing the design of new commercial Direct Air Capture facilities.

Projects with Heirloom will also accelerate the scale up and electrification of the core technology for other applications, including in cement, iron and steel, lithium and other critical minerals.

"ZESTY" - Zero Emissions Steel TechnologY

I'll turn now to our other two priority focus areas for the year, ZESTY and our joint venture with Pilbara Minerals.

Australia supplies over half the world's iron ore, contributing over \$150 billion to our national export earnings. ⁵ Almost all of these exports are in the form of hematite ⁶, an ore type that is not currently compatible with other H-DRI technologies being developed.

With iron and steel accounting for around 7% of global emissions,⁷ enabling the decarbonisation of iron ore processing across a range of ore types is imperative for global climate and development goals, and of significant national importance.

With support from the Australian Government's Australian Renewable Energy Agency (**ARENA**), we have progressed testing and design work for a renewably powered direct hydrogen reduced iron, or H-DRI demonstration plant.

Initial pilot-scale testing showed excellent metallisation of a range of iron ore types with ZESTY. Importantly, this includes hematite ores from the Pilbara region.

A Front-End Engineering and Design study for a 30,000 tonne per annum zero CO₂ emissions ZESTY iron plant, as well as a significantly expanded ore testing program, is expected to be completed by the

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⁵ https://www.minerals.org.au/news/record-high-resources-export-revenue.

⁶ Iron Ore | Geoscience Australia

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



end of the calendar year.

Lithium

In November 2022, Calix executed a joint venture with Pilbara Minerals to develop a novel midstream lithium processing technology to produce low carbon, low waste, and high value lithium salt.

The joint venture has made significant progress, culminating in the proposed mid-stream demonstration plant passing its Financial Investment Decision point in August 2023.

The demonstration plant is designed to process around 27,000 tonnes per year of spodumene concentrate fines to produce over 3,000 tonnes of lithium phosphate.

This process could increase lithium concentration from around 5 or 6 per cent to 35 per cent, reduce waste from 94 per cent to zero, and reduce CO₂ emissions by 80 to 90 per cent relative to conventional processing in rotary kilns.⁸

The project also aims to demonstrate the expected lower capital and operating costs of electric calcining and the potential to rationalise supply chains by processing minerals at the mine site.

The \$105 million dollar project is supported by a \$20 million grant from the Australian Government and \$67.4 million from Pilbara Minerals, with Calix contributing \$17.6 million and receiving 24 per cent carried equity as recognition of its core technology.

Successful demonstration of the mid-stream process is intended to provide a pathway to its commercialisation for the global spodumene processing industry.

Magnesia

This year, Calix combined its Water and Biotech businesses into a new Magnesia line of business, 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 develop and commercialise applications for agriculture, marine and antimicrobial resistance, as well as develop sustainable processing of magnesium metal.

In the US, new water product development 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 per cent coupled with strong margins led to a gross profit increase of 28.6 per cent. Revenue growth accelerated during the year, with growth in the second half of FY23 up 28 per cent compared with the same period in FY22.

Significant progress was also made in building two new hydration plants in Ripon, Wisconsin, and Lufkin, Texas, with the Lufkin plant now on-line and the Ripon facility expected to commence operations by the end of 2023. Calix believes that these 2 new plants will support a significant growth in this line of business in the region.

Research & Development

⁸ Calix ASX Announcement. Final Investment Decision for Mid-Stream Demonstration Plant. August 2023



In collaboration with our network of research centres and industry partners, Calix continues to explore and develop further applications of its core platform technology.

Our high surface area magnesium oxide materials with enhanced bioactivity offer multiple safe and sustainable environmental and health solutions. Trials continue for novel applications in agriculture, marine coatings, and antimicrobial resistance.

In relation to batteries, commercial-prototype Lithium Manganese Oxide battery cells targeted at high power applications were successfully produced. Calix also expanded its battery production capability to new chemistries favoured by the electric vehicle segment of the battery market, demonstrating potential for a renewably powered and low-cost chemistry agnostic platform technology to produce cathode materials.

Sustainability

As Calix endeavours to help solve critical global environmental challenges, we are also making progress towards greater sustainability in our own operations.

We have again reaffirmed our commitment to the United Nations Global Compact (**UNGC**) – the world's largest sustainability initiative – of which Calix has been a participant since 2020.

We have also completed our inaugural greenhouse gas assessment, which has provided an accurate and transparent foundation on which Calix is developing 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 and wellbeing of our employees continues to be our primary operational focus.

All injuries, incidents, investigation outcomes and near-misses are reported to the board, demonstrating a strong safety 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 any relevant incidents and safety related events.

People and culture

Calix has a dynamic workforce now spread across many countries and we absolutely understand that our people drive our performance.

Calix fosters a culture of innovation and diversity of thinking. We also seek to provide on-going personal and career development opportunities, as well as a framework of close communication and listening with our workforce.

Our recent culture survey, conducted by external and independent consultants, showed strong engagement from a passionate and caring team, as well as identifying areas where we can enhance our employee experience and the way in which we work and collaborate with each other.

As we continue to grow, we will remain focused on building a collaborative, diverse and supportive culture across the whole team around the world.

Governance

In the 2023 financial year, 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 Management Committee, and Technology Committee.

Over the last few years, the board has continued to maintain a proactive approach to board succession and renewal. Our goal 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.

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.

Alison's appointment, in addition to further renewal planned, has strengthened 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 (who is here with us today) for his substantial and valuable contribution to Calix over many years. His commitment and wise counsel provided considerable benefit to the Group, and we all wish him well in the future.

Our process of board renewal and succession continues, and I'm pleased to announce the proposed appointment of Dr Sarah Ryan, who is with us online today. Dr Ryan will join the Calix board on 1 January next year.

Dr Ryan will bring to Calix extensive global experience from across the energy, mining and investment sectors, including a deep understanding of heavy industry, complex project management, technology commercialisation and company scale-up processes.

Dr Ryan's deep technical expertise and breadth of executive and board experience includes helping to build organisations across the energy, natural resources and infrastructure sectors, with a particular emphasis on innovation and technology enabled solutions.

Dr Ryan is currently a Non-executive Director of Viva Energy Group Limited, Aurizon Holdings Limited, Transurban Group and the Future Battery Industries Co-operative Research Centre. Until recently, she was a Non-executive Director of Oz Minerals Limited and Woodside Energy Group Limited.

Dr Ryan holds a Bachelor of Science in Geology from the University of Melbourne, a Bachelor of Science (First Class Honours) in Geophysics from the University of Adelaide, and a PhD in Petroleum Geology and Geophysics from the University of Adelaide and is also a Fellow of the Academy of Technological Sciences and Engineering.

I would also like to let you know that this will be my last Calix AGM, as I propose to retire from the board in the first half of calendar year 2024.

It has been an honour and a privilege to serve Calix over the years, and to work with such a great team of people here in Australia and around the world. I have no doubt that the period ahead is going to be very exciting for Calix.

After my retirement, the Calix board will be in excellent hands with Alison Deans set to take on the role as the Chair of Calix. Alison's company building, commercial, governance and technology related skills are very well matched to Calix's current and future needs, and I know the board will be very well



positioned in the future to work with the whole team to meet our strategic goals in a risk managed and well governed way.

Conclusion and thanks

On behalf of the board of directors, I would like to conclude by thanking Calix's customers and partners for their continued commitment and collaboration as we work together to help solve global challenges.

I would also like to thank my board and senior management colleagues, Helen Fisher, Alison Deans, Phil Hodgson, Mark Sceats and Darren Charles for their dedication to the goals Calix has set. Our ambitions are considerable, driven by the potential we see in the core platform technology and the scale and urgency of the problems we hope to address. We continue to prioritise our efforts on the key applications that we believe will deliver the greatest impact and put Calix on the path to realising its full potential.

Our rapid progress over the past few years is a result of our talented and purpose-driven team, and the board sincerely thanks all of Calix's employees, and our contractors and consultants, for their tireless efforts.

Finally, on behalf of the Calix board, management team and all the staff, we would like to thank each and every one of our Calix shareholders for your ongoing and very much valued support.

--- Address close ---

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

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About Calix

Calix Limited (ASX: CXL) is an environmental technology company solving global challenges in industrial decarbonisation and sustainability, including CO₂ 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 bio-activity.

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.

www.calix.global

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