



# Investor Presentation FY25 Interim Results

26 February 2025

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MARS IS FOR  
QUITTERS



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## Acknowledgement of country

Calix acknowledges the First Nations people and traditional custodians of the lands upon which we live and work, and recognise their deep, ongoing connection to the land, waters and community. We pay respect to their Elders and leaders, past, present and emerging, and extend that respect to all First Nations people.

## 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: solving global challenges. Because Mars is for quitters.



# About Calix

Calix Limited is an environmental technology company solving urgent global challenges in industrial decarbonisation and sustainability.

Calix's unique patented core platform technology delivers indirect heating of raw materials to enable efficient, precise, flexible and renewably powered mineral processing and capture of unavoidable industrial emissions.

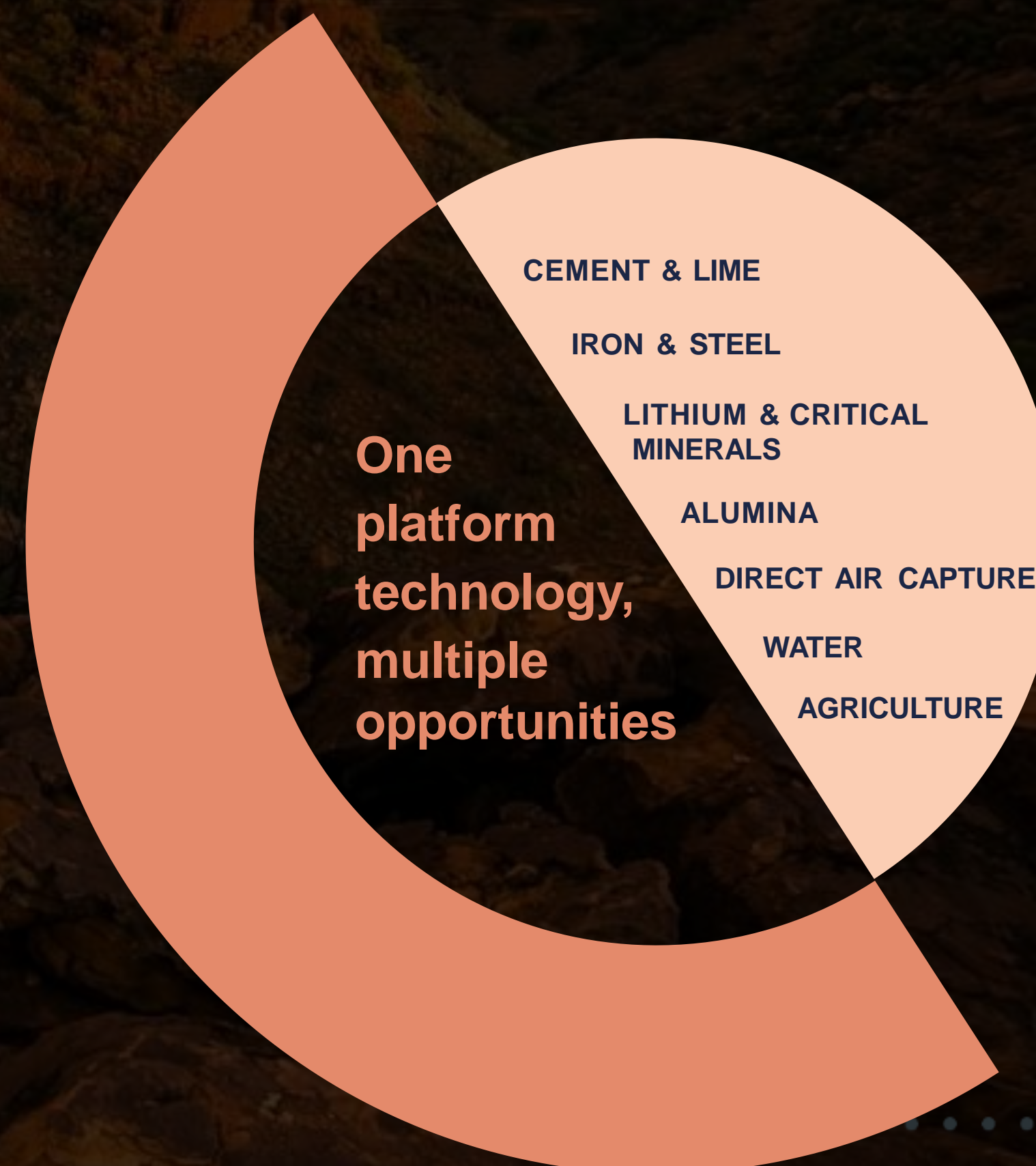
With strong and increasing demand driven by global decarbonisation commitments, Calix is applying its platform technology to the cement, steel, alumina, and critical minerals industries, as well as the direct air capture of atmospheric carbon dioxide, and the production of sustainable environmental products.

Leveraging its core platform technology and a global network of partners, Calix is urgently developing multiple businesses that deliver positive global impact. Because there's only one Earth.

MARS IS FOR QUITTERS

## Solving global challenges

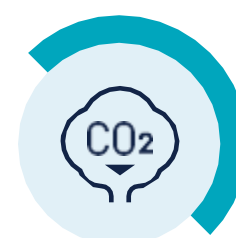
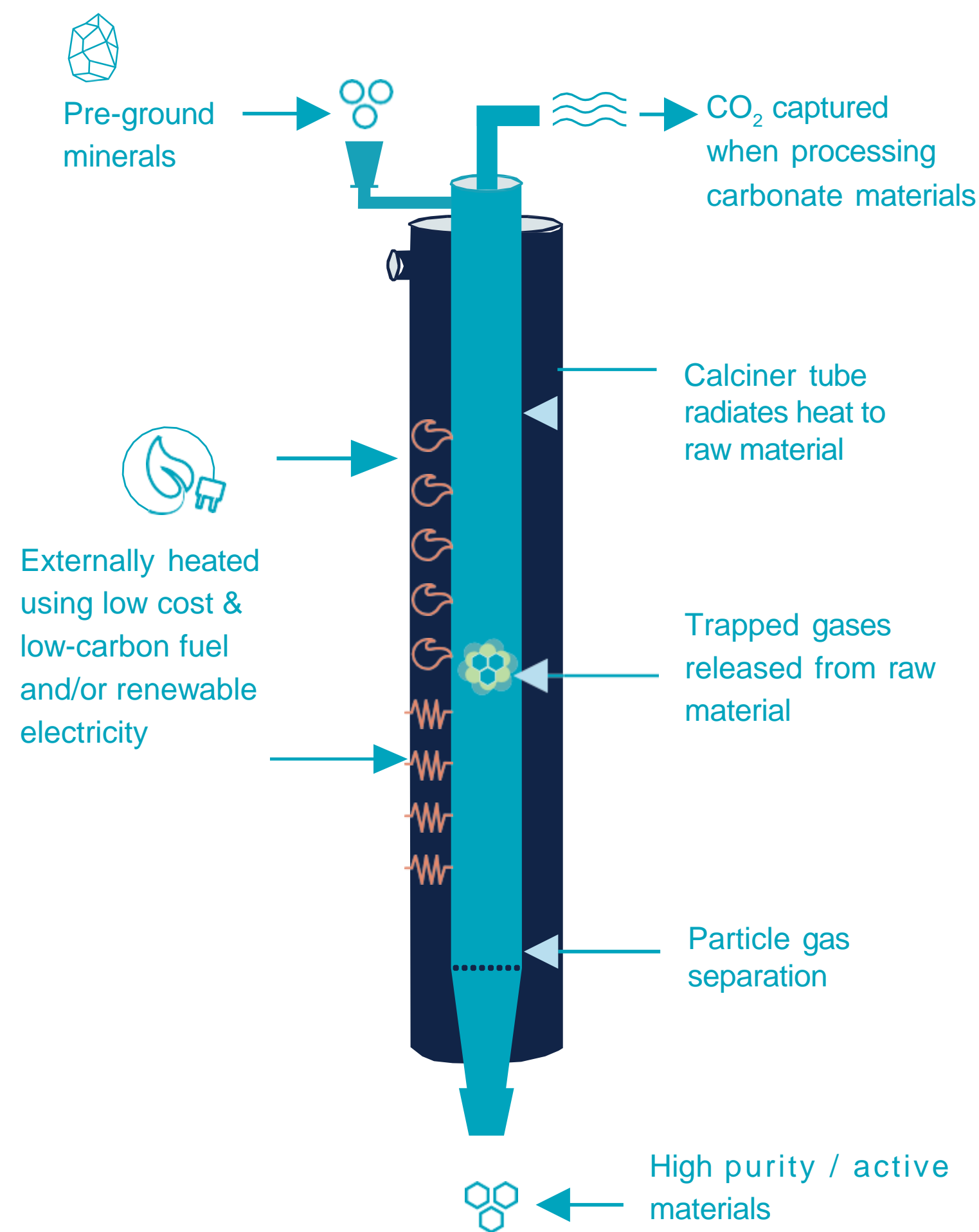
Electrification of industrial processing | Capture of unavoidable emissions | Sustainable environmental solutions





# Calix's core platform technology

A new way to “heat stuff up”



## Carbon Capture

Unavoidable CO<sub>2</sub> process emissions from cement & lime production are captured for use or storage.



## Sustainable Processing

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



## Magnesia

Produces high purity / active materials with enhanced chemical and / or bioactivity.

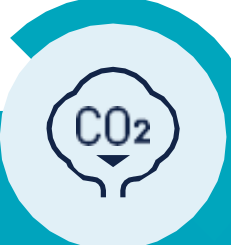























# Calix Group Structure



One core platform technology with multiple applications for global industries

Platform output	 Carbon Capture		 Sustainable Processing			 Magnesia
Business subsidiary			Pilbara Minerals UJV	ZEAL		
Application	 Cement & lime	 Direct Air Capture	 Lithium	 Alumina	 Iron & steel	 Water
Market Size	1.4 BTpa CO <sub>2</sub> <sup>1</sup>		US\$7Bpa <sup>2</sup>	US\$45.5Bpa <sup>3</sup>	US\$640Bpa <sup>4</sup>	~US\$100m <sup>5</sup>
Partners	   					
Revenue model	Licence fees (\$ per tonne CO <sub>2</sub> )		Licence fees (% Total Revenues)			Growing direct / distributor sales



1H FY25 Results

26 February 2025

1.

GCCA 2050 Net Zero Global Industry Roadmap

2.

Estimated as 50% of total lithium market as measured by lithium carbonate equivalent (LCE) derived from spodumene - <https://www.mckinsey.com/industries/metals-and-mining/our-insights/australias-potential-in-the-lithium-market>

3.

Alumina global market revenue estimated at <https://www.precedenceresearch.com/press-release/alumina-market#:~:text=The%20global%20alumina%20market%20size,combination%20of%20aluminum%20and%20oxygen.>

4.

Estimated as US\$400 per tonne of iron @ 1.6BTpa <https://www.statista.com/statistics/589979/metal-content-of-the-global-iron-ore-production/>

5.

US magnesium hydroxide market management estimate, caustic replacement market likely several multiples of this

6.

Heirloom statement in press release <https://fox40.com/news/local-news/san-joaquin-county/heirloom-carbon-technologies-tracy-co2/>



# 1H FY25 Financial Highlights

Growing revenues and focused commercialisation

## Revenue growth

- \$13.5m product & services revenue, up 11%
  - \$10.7m Magnesia revenue, up 8%
  - \$2.9m Leilac services revenues, up 26%
- Non-cash \$8.8m gain on PLS UJV
- Further revenue growth expected in 2H FY25

## Cost base reduced going forward

- ~ \$6m in annualised cost savings take effect from Jan 2025
- Headcount reduced from ~155 → 120
- ~ \$3m in one-off costs incurred in 1H FY25 period due to the restructure & discontinued activities
- Capex contribution of \$6.6m for PLS UJV plant in H1 2025. Only \$2.5m remaining contribution from Calix to completion

## Extended cash runway


- \$35.8m cash balance at 31 Dec 2024
- Balance sheet strengthened by \$20m Institutional Placement & \$2.1 SPP (after balance date)
- Engineering revenues, grants & partner funding to support projects prior to licensing royalties commencing
- At least 18-month runway to pursue independently funded projects, and subsidiary level capital raisings for Leilac and ZESTY



1H FY25 PRODUCT & SERVICES REVENUE  
 **\$13.5m**  
(1H FY24: \$12.2m)

LEILAC SERVICES REVENUE  
 **\$2.9m**  
(1H FY24: \$2.3m)

MAGNESIA REVENUE  
 **\$10.7m**  
(1H FY24: \$9.9m)

PLS UJV GAIN  
 **\$8.8m**  
(1H FY24: \$3.4m)

CASH ON HAND (31 Dec 2024)  
 **\$35.8m**  
(30 Jun 2024: \$43.0m)





# Statement of profit or loss

For the half-year period ended 31 December 2024

	1H FY25 (\$m's)	1H FY24 (\$m's)
<b>Revenue, grants &amp; other income</b>	<b>15.2</b>	<b>15.9</b>
Magnesia revenues	10.7	9.9
Leilac revenues	2.9	2.3
Grants & other income	1.6	3.7
<b>Cost of sales</b>	<b>(8.7)</b>	<b>(6.3)</b>
<b>Gross profit and other income</b>	<b>6.5</b>	<b>9.6</b>
<b>Operating expenses</b>	<b>(22.3)</b>	<b>(19.7)</b>
Sales & marketing expenses	(5.4)	(5.6)
Research & development expenses	(10.9)	(10.1)
Administration & other expenses	(6.0)	(4.0)
<b>Net operating result</b>	<b>(15.9)</b>	<b>(10.2)</b>
<b>Other items in profit &amp; loss</b>	<b>3.1</b>	<b>(2.7)</b>
Non-cash gain on investment in UJV	8.8	3.4
Other gains	1.0	0.1
Non-cash depreciation, amortisation & impairment expenses	(5.4)	(3.7)
Non-cash share-based payments expense	(1.3)	(2.5)
<b>Loss from ordinary activities</b>	<b>(12.8)</b>	<b>(12.9)</b>

## Key takeaways

- Revenue growth continues
  - Continued revenue growth in Magnesia
  - Accelerating growth in Leilac engineering services
- Sharper focus on priority markets and commercialisation projects from October 2024
  - Focus on current and near-term revenue generating activities and funded projects
  - Non-cash gain of \$8.8m associated with Mid-Stream Project UJV
- Cost-base reduction from reprioritisation and restructuring
  - \$6m in annualised savings take full effect from January 2025
  - One-off costs of \$3m in the period



# Statement of financial position

As at 31 December 2024

	Dec 24 (\$m's)	Jun 24 (\$m's)
Cash and cash equivalents	35.8	43.0
Trade, other receivables and other assets	5.2	4.3
Inventories	4.2	5.4
<b>Current assets</b>	<b>45.2</b>	<b>52.7</b>
Trade, other receivables, other assets & right of use asset	2.6	2.8
Intangible assets	12.7	12.6
Goodwill	3.6	3.6
Property, plant and equipment	53.7	40.6
<b>Non-current assets</b>	<b>72.6</b>	<b>59.7</b>
Trade & other payables	10.4	12.2
Borrowings	0.7	0.8
Current lease liabilities	1.0	0.8
Provisions	1.7	1.9
Deferred revenue & other income	10.2	10.1
<b>Current liabilities</b>	<b>24.1</b>	<b>25.7</b>
Non-current lease liabilities	1.2	1.7
Provisions	0.4	0.5
Deferred tax	0.4	0.4
<b>Non-current liabilities</b>	<b>2.0</b>	<b>2.6</b>
<b>Net Assets</b>	<b>91.7</b>	<b>84.0</b>

## Key takeaways:

- \$35.8m cash balance at 31 Dec 2024
- Balance sheet remains strong & essentially debt free
- Balance sheet was bolstered by \$20m Institutional Placement
- An SPP – closed after the balance date – raised a further \$2.1m
- Flexibility retained to pursue the right capital & commercialisation strategy at the subsidiary level



# Statement of cash flows

For the half-year period ended 31 December 2024

	1H FY25 (\$m's)	1H FY24 (\$m's)
Receipts from customers	13.3	8.9
Receipts from government bodies	0.4	1.1
Payments to suppliers and employees	(32.1)	(26.8)
Interest received	0.5	0.4
<b>Net cash used in operating activities</b>	<b>(17.9)</b>	<b>(16.4)</b>
Receipts from government bodies	1.1	-
Purchases of property, plant & equipment	(8.1)	(8.0)
Purchase of intangible assets	(0.7)	(2.1)
Payments for loans to directors	-	(0.3)
Receipts of repayment of loans to directors	0.1	-
<b>Net cash used in investing activities</b>	<b>(7.6)</b>	<b>(10.4)</b>
Proceeds from issue of shares	20.0	-
Payment for transaction costs related to issue of shares	(1.1)	-
Payment for lease principal	(0.5)	(0.3)
Repayment of borrowings	(0.1)	(0.4)
<b>Net cash (used in) / provided from financing activities</b>	<b>18.3</b>	<b>0.1</b>
Net movement in cash	(7.2)	(26.7)
Cash at the beginning of the period	43.0	74.5
<b>Cash at the end of the period</b>	<b>35.8</b>	<b>47.8</b>

## Key takeaways:

- Healthy cash position to pursue our opportunities
- \$6.6m investment in PLS Mid-Stream Project UJV
- \$1.5m investment in Leilac and Magnesia production capacity expansion
- After balance date events:
  - \$2.1m provided by SPP
- 2H FY25 outlook:
  - Continued revenue growth expected in Magnesia and Leilac
  - Reduced cost base following restructure
  - Investment cost in PLS Mid-Stream Project reduced by WA Government grant – approx. \$2.5m capital contribution remains to complete construction
  - At least 18-month cash runway to pursue currently funded projects and subsidiary level capital raisings



## Operational update







# Mid-Stream Demonstration Plant with Pilbara Minerals UJV



## Project

## Partner

## Funding support

## Industry

## Market size

PLS UJV Mid-Stream



Australian Government  
Department of Industry,  
Science and Resources



WA.gov.au

Lithium

Royalty % of US\$7Bpa<sup>1</sup>

### Objectives

- Demonstrate lower CAPEX & OPEX for mineral processing with electric calcination
- Create a concentrated & low-carbon lithium product at the mine site
- Demonstrate the ability to simplify supply chains and unlock logistically challenging ore deposits

### Status

- \$15m grant from the Western Australian Government reduced CAPEX and enabled the project to restart<sup>2</sup>
- Project remains on budget<sup>3</sup> & is 74% complete to the end of Dec 2024
- Construction commenced – bulk earthworks complete & preferred contractors selected
- Fabrication of key equipment well progressed
- \$2.5m remaining capital contribution from Calix

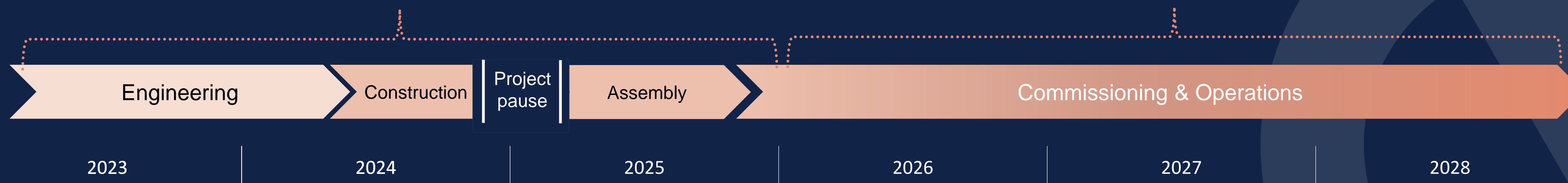
### Targeted next steps

- Commissioning targeted for December Quarter 2025
- The UJV continues to explore opportunities to scale and deploy the technology to the global spodumene industry

### Indicative timeline

### Secured capital & grant funding<sup>2</sup>

### Targeted UJV revenues



1H FY25 Results  
26 February 2025

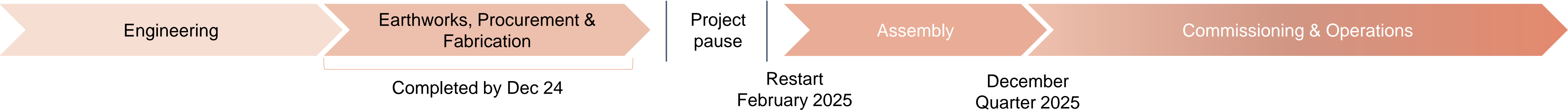
1. Estimated as 50% of total lithium market as measured by lithium carbonate equivalent (LCE) derived from spodumene  
<https://www.mckinsey.com/industries/metals-and-mining/our-insights/australias-potential-in-the-lithium-market>  
2. ASX Announcement: Calix announces Mid-stream project restart. 13 February 2025  
3. ASX Announcement. Final Investment Decision for Mid-Stream Demonstration Plant. 2 Aug 2023

\*Project timelines are indicative only. Please refer to ASX announcements for latest project timelines



# Rapid restart underway for PLS Mid-Stream Project

The Project is 74% complete to the end of December 2024. Commissioning targeted for Dec Quarter 2025





Project	Partner	Funding support	Industry	Market size
ZESTY Green Iron Demo	 <b>HILTCRC</b> Heavy Industry Low-carbon Transition	 Australian Government Australian Renewable Energy Agency 	Iron & Steel	Royalty % of US\$640Bpa <sup>1</sup>

## Objectives

- Develop industry leading H<sub>2</sub>-DRI technology
- Demonstrate green iron production from Australian ores & fines
- Minimise hydrogen use & green iron costs
- Enable multiple decarbonisation pathways for iron & steel

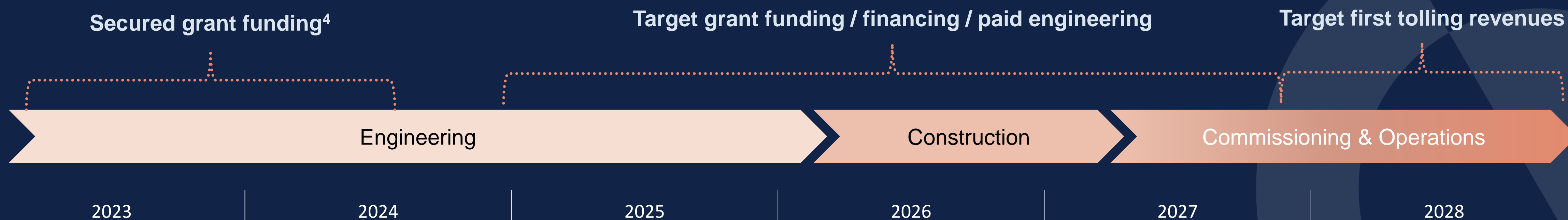
## Status

- ZESTY proven at pilot scale, with metallisation rates up to 98% from Australian hematite/goethite ores<sup>2</sup>
- First green iron briquettes produced
- FEED Study completed<sup>2</sup>
- Prospective techno-economic findings<sup>2</sup>
- Progress towards FID<sup>3</sup>

## Targeted next steps

- Agree commercial contracts for ZESTY Demo plant
- Secure finance for ZESTY Demo plant
- Reach FID
- Continue to test & develop the technology

## Indicative timeline



1H FY25 Results  
26 February 2025

1. Estimated as US\$400 per tonne of iron @ 1.6BTpa <https://www.statista.com/statistics/589979/metal-content-of-the-global-iron-ore-production/>

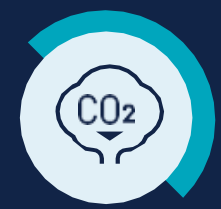
2. Calix ASX Announcement. ZESTY FEED study results published. 12 Feb 2024

3. Calix ASX Announcement. Calix ZESTY Investor Webinar. 30 May 2024.

4. ASX Announcement. Calix announces ARENA funding support for ZESTY. 8 Nov 2022

\*Project timelines are indicative only. Please refer to ASX announcements for latest project timelines





# Direct Air Capture with Heirloom



Leilac



calix

## Project

## Partner

## Partner funding support

## Industry

## Market size

Heirloom – LA, USA



Heirloom



U.S. DEPARTMENT OF  
**ENERGY**

Direct Air Capture

>1 BTpa CO<sub>2</sub><sup>1</sup>

### Objectives

- Develop an integrated and scalable design for Heirloom's DAC process powered by the Leilac technology
- Build Leilac's electric calcination and carbon capture technology at Heirloom DAC facilities in Shreveport, Louisiana, USA, scaling to ~300,000 tons per year of CO<sub>2</sub> removal capacity as a part of Project Cypress<sup>2</sup>

### Status

- Global & perpetual licence agreement signed for the exclusive use of Leilac's technology by Heirloom<sup>3</sup>, US\$3 / tonne CO<sub>2</sub> base royalty rate
- No capital contribution by Calix
- Paid engineering underway for the design of the Leilac technology for Heirloom's DAC process
- Deployment planned through a phased scale up
- First stage due to start construction in 2HFY25
- Revenue growth expected in 2HFY25 for Leilac engineering services

### Targeted next steps

- Continue to deliver paid engineering services to complete detailed engineering & design work
- Construct a first Leilac plant for Heirloom in 1HFY26.
- Deploy ~300,000 tons of CO<sub>2</sub> per annum in phases, with a first full-scale module (~100ktpa capacity) targeted to commence in 2027

### Indicative timeline

### Paid engineering<sup>3</sup>

### Targeted first licence revenues



2023

2024

2025

2026

2027

2028

1. Heirloom statement in press release <https://fox40.com/news/local-news/san-joaquin-county/heirloom-carbon-technologies-tracy-co2>  
2. U.S. DOE: Biden-Harris Administration Announces Up To \$1.2 Billion For Nation's First Direct Air Capture Demonstrations in Texas and Louisiana. 11 Aug 2023  
3. ASX Announcement. Calix announces Heirloom licence agreement. 30 Oct. 2023  
4 ASX Announcement. Calix announces update on DAC projects. 25 Jun 2024

\*Project timelines are indicative only. Please refer to ASX announcements for latest project timelines  
\*\* 1 ton = 0.91 tonnes





Project	Partners	Funding support	Industry	Market size
Project ZETA	 <div>V A S T</div> 	 <div>Australian Government Department of Climate Change, Energy, the Environment and Water</div>	Cement & lime	1.4 BTpa CO <sub>2</sub> <sup>1</sup>

## Objectives

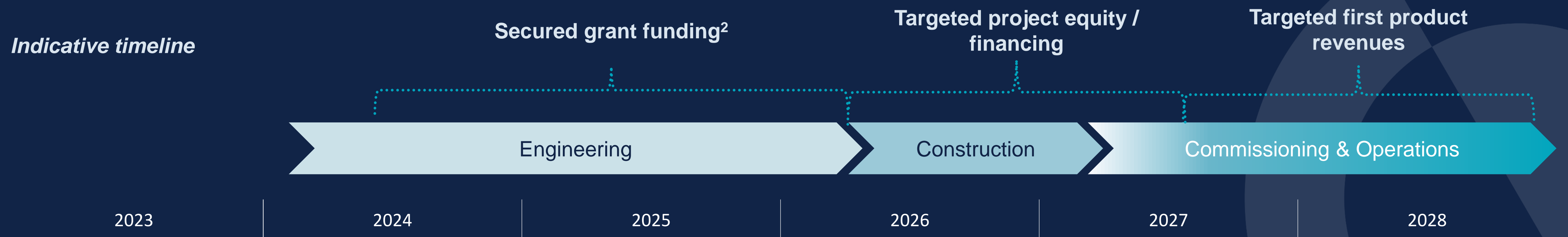
- Build a commercial demonstration electric calciner for near zero emissions lime & cement
- Sell captured process CO<sub>2</sub> emissions to the Solar Methanol 1 project<sup>3</sup> to produce green methanol
- Sell decarbonised lime products in collaboration with partners
- Develop a novel zero emissions cement making process that reduces cost, energy consumption & footprint

## Status

- \$15m grant from the Australian Government secured
- Collaborations & partnerships established in first-of-a-kind Carbon Capture & Use project
- Pre-FEED study continues to progress

## Targeted next steps

- Complete pre-FEED study
- Progress FEED study to enable a Final Investment Decision
- Secure balance of funding required for construction, commissioning & operations phases





Project	Partner	Funding support	Industry	Market size
Leilac-2		     Horizon 2020 European Union funding for Research & Innovation	Cement & lime	1.4 BTpa CO <sub>2</sub> <sup>1</sup>

Objectives

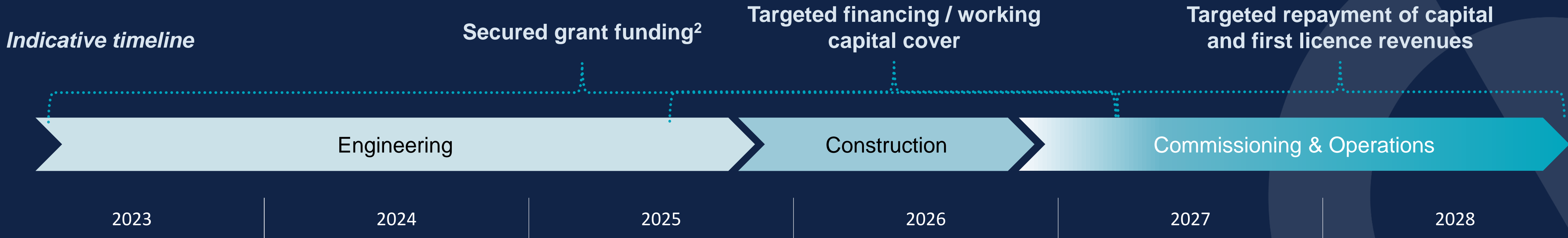
- Demonstrate a replicable module that can efficiently capture up to 100ktpa of unavoidable process emissions
- Successfully retrofit the Leilac module to an operational cement plant with minimal downtime
- Demonstrate the ability to use low-cost and low-carbon fuels

Status

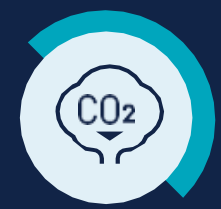
- Project successfully relocated to Heidelberg Materials' Ennigerloh cement plant, following closure of Hannover plant<sup>3</sup>
- JV formed with Heidelberg Materials for the construction, operation & future ownership of the Leilac-2 plant, subject to performance testing
- Early site works at Ennigerloh commenced
- Permitting process at Ennigerloh progressing and expected to allow substantive site works to commence on schedule

Targeted next steps

- Complete permitting submission and gain permission to commence substantial site works / construction
- Secure financing for plant construction
- Commence construction in 2025
- Begin commissioning & operations in 2026







# Leilac-3: Full-scale cement & lime deployment



Leilac



calix

## Projects

## Partners

## Funding support

## Industry

## Market size

Multiple in development



TBC

Cement & Lime

1.4 BTpa CO<sub>2</sub><sup>1</sup>

### Objectives

- Deploy Leilac's technology at full-scale with multiple partners in the cement & lime industry
- Commercial demonstration of Leilac's technology as the leading decarbonisation solution in key target markets

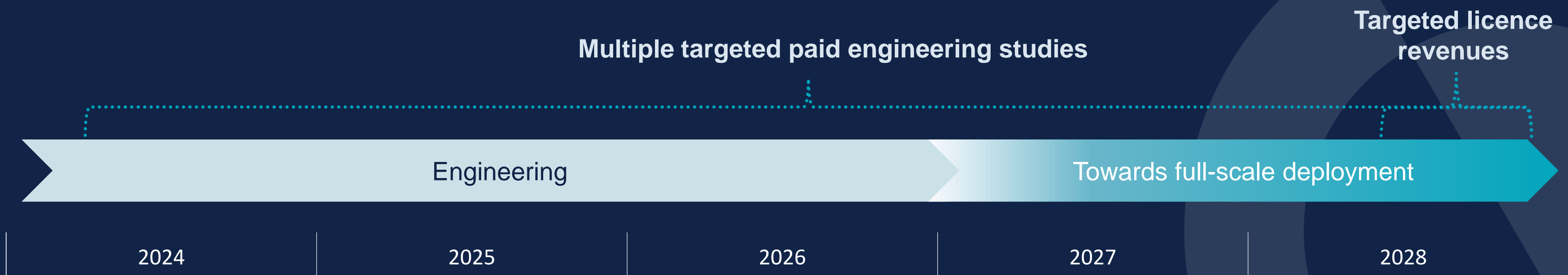
### Status

- Heidelberg Materials & Leilac continue to explore the development of a full-scale commercial installation<sup>2</sup>
- Projects with Titan Cement & MLC awarded U.S. DOE funding for pre-FEED studies<sup>3</sup>
- Multiple other projects in the pipeline continue to progress

### Targeted next steps

- Continue to progress commercial partnerships for full-scale applications of the Leilac technology
- Pursue funding support for full-scale projects in target markets
- Continue to progress technology development & engineering work for full-scale designs

### Indicative timeline



1H FY25 Results  
26 February 2025

1. GCCA 2050 Net Zero Global Industry Roadmap  
2. ASX Announcement. Calix announces Leilac and Heidelberg Materials JV for L-2. 11 Jun 2024  
3. ASX Announcement: Calix announces US Dept of Energy Pre-FEED grant awards. 10 January 2025

\*Project timelines are indicative only. Please refer to ASX announcements for latest project timelines



Product	Partners	Funding support	Industries	Market size
Magnesium Hydroxide Liquid		N/A	Water	~100m US\$pa <sup>1</sup>

### Objectives

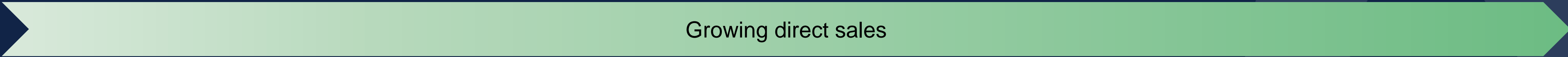
- Grow sales of MHL products for sustainable water & wastewater treatment

### Status

- Development of ‘specialties’ applications and Mg metal project paused to allow prioritisation of resources
- Ongoing revenue and margin growth
- Unity Water project commenced

### Targeted next steps

- Accelerating revenue growth in Calix’s Water business



2023

2024

2025

2026

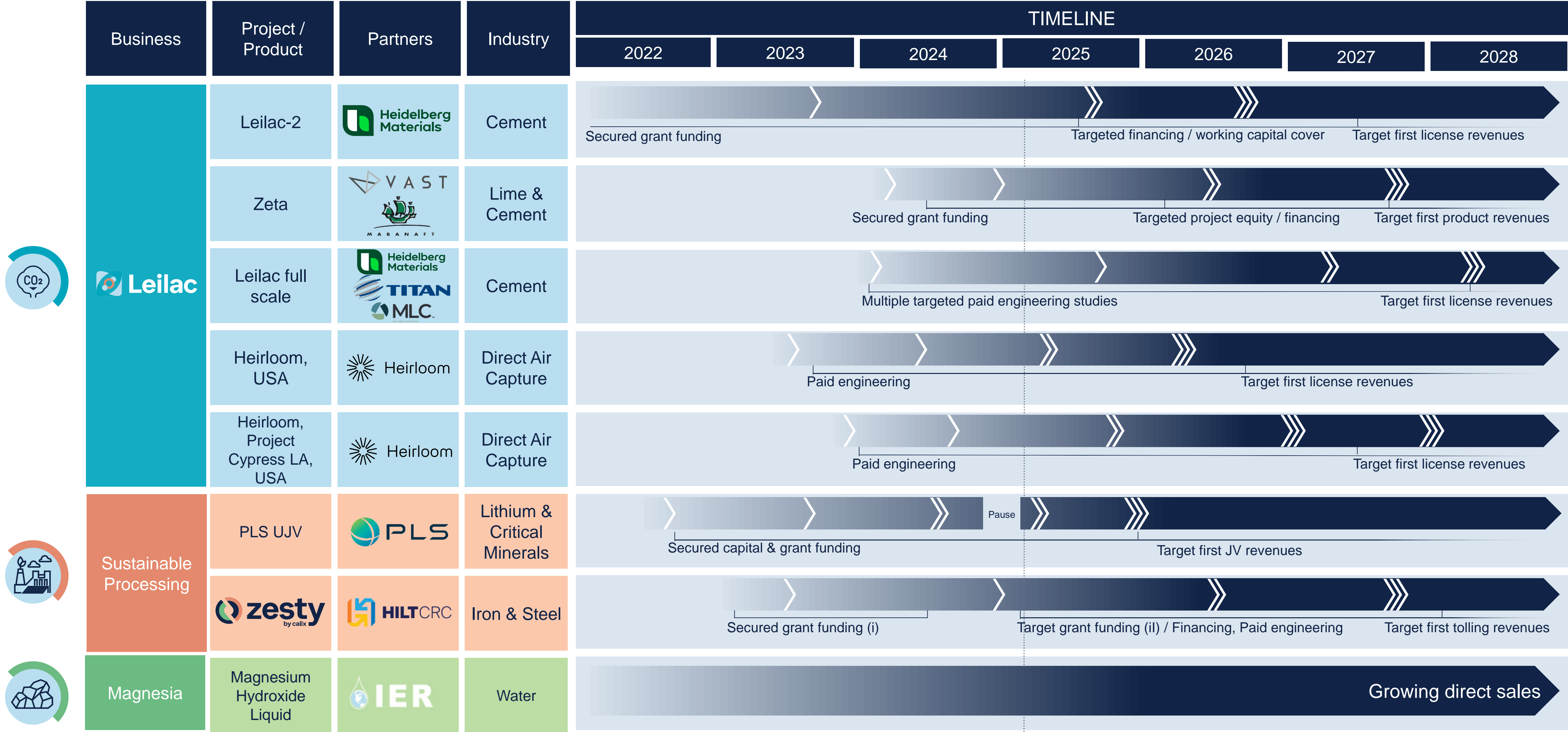
2027

2028





Indicative project & revenue timeline





# Calix recognised on the global stage



## ZESTY wins COP29 global Net-Zero Industry Award

- The award for global Outstanding Project was presented by Ministers Bowen (Australia) & Gewessler (Austria) at COP29.
- The Net-Zero Industries Mission is led by Austria and Australia, in collaboration with Canada, China, the European Commission, Finland, Germany, the Republic of Korea, the UK & the USA.
- Member countries account for over 50% of global industrial emissions & US\$13 billion in annual investment in research, development & demonstration.



HILT CRC

## ZESTY project wins at HILT CRC 2024 Annual Conference

- The Project “*Testing of Australian iron ores in a hydrogen flash smelting process*” was awarded the Best Contribution to Industry-Research Collaboration at the HILT CRC 2024 Annual Conference.
- The project was delivered through a collaboration between Calix, Swinburne, University of Adelaide, Fortescue, Roy Hill, Liberty and Grange Minerals.



25-27 FEBRUARY 2025

DECARB CONNECT NEXT GEN AWARDS

## Calix a finalist for Next Gen Awards

- The Decarb Next Gen Awards 2025 recognises breakthrough technologies with the potential to accelerate industrial decarbonization for the hard-to-abate sectors.
- Calix a finalist in the Decarbonising Industrial Heat & Electrification category.
- Winners to be announced at the Decarb Connect conference in Houston, USA on 27 February 2025.



25-27 FEBRUARY 2025

DECARB CONNECT NEXT GEN AWARDS

WE'VE BEEN SHORTLISTED!

[www.decarbconnectnorthamerica.com](http://www.decarbconnectnorthamerica.com)



“ARENA is pleased to be supporting Calix’s Australian technology aiming to decarbonise this ‘hard-to-abate’ sector and help protect Australia’s valuable export industry.  
“We congratulate Calix on winning the Net-Zero Industry Award. Calix represents great Australian innovation and highlights what is possible in finding practical solutions for reducing emissions in the metals refining process,”

**Darren Miller, CEO, Australian Renewable Energy Agency**

“The innovative thinking behind the ZESTY project is a prime example of what industry needs to develop cost-competitive and scalable technology for low-emissions iron ore processing. It has been gratifying to work with Calix on accelerating the development of this technology, which can contribute to the decarbonisation of heavy industry. Congratulations to the Calix team for this well-deserved recognition.”

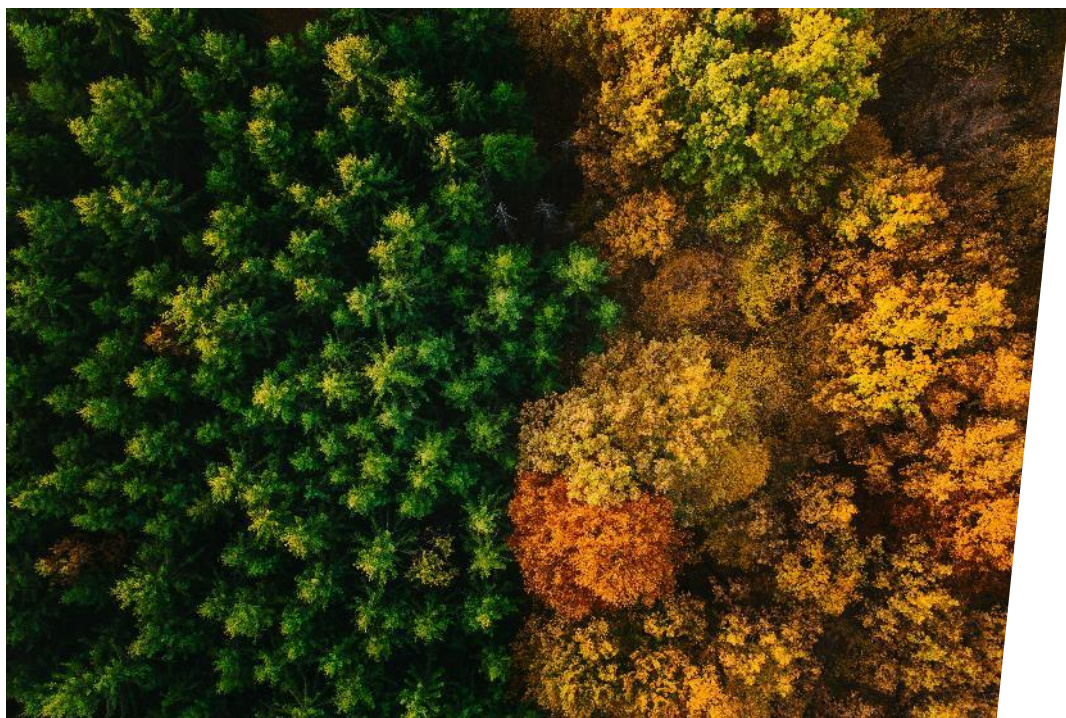
**Jenny Selway, CEO, HILT CRC**



1H FY25 Results  
26 February 2025



# Sustainability | 1HFY25 highlights



## AMBITION

### Decarbonise operations

Reduce emissions in line with a 1.5-degree pathway

### Increase diverse representation

Achieve gender balance of 40:40 at all levels of the organisation

### Address resource consumption

Addressing the sustainability of the materials and resources we use

### Ensure zero harm

Realise zero harm through a safe workplace

## 1HFY25 HIGHLIGHTS

- |  |  |  |   |
|--|--|--|---|
| <ul style="list-style-type: none"><li>Completed data gathering for FY24 emissions inventory, which will serve as our emissions target baseline</li></ul> | <ul style="list-style-type: none"><li>Launched new HR system and 2024 culture survey to gather feedback and data</li><li>Continued DEIB series showcasing conversations on inclusivity</li></ul> | <ul style="list-style-type: none"><li>Instituted new materials tracking process for U.S. sites</li><li>Completed initial water risk assessment for global operations</li></ul> | <ul style="list-style-type: none"><li>Updated company-wide Health, Safety and Environment Manual, including the addition of an Enviro. Management Procedure</li></ul> |
|--|--|--|---|



# Global industrial decarbonisation markets & policy drivers



Market	Europe	USA	Australia	China	India	Japan	Brazil
Policy support	<ul style="list-style-type: none"><li>– EU ETS</li><li>– Carbon Border Adjustment Mechanism</li><li>– Innovation Fund</li><li>– Net-Zero Industry Act</li><li>– Clean Industrial Deal<sup>1</sup> (Q1 CY 2025)</li><li>– Industrial Decarbonisation Act<sup>1</sup> (Q4 CY2025)</li></ul>	<ul style="list-style-type: none"><li>– 45Q tax credit for CCUS &amp; DAC</li><li>– US-Australia Climate, Critical Minerals &amp; Clean Energy Transformation Compact</li><li>– DAC Hubs Program</li></ul>	<ul style="list-style-type: none"><li>– Safeguard Mechanism</li><li>– Critical Mineral Production Tax Incentive</li><li>– \$2b green aluminium production credit</li><li>– \$1b Green Iron Investment Fund</li><li>– ARENA</li><li>– \$15b National Reconstruction Fund</li></ul>	<ul style="list-style-type: none"><li>– Cement, steel &amp; aluminium added to China's Emissions Trading Scheme (ETS)<sup>2</sup></li></ul>	<ul style="list-style-type: none"><li>– Regulations adopted for a Carbon Credit Trading Scheme to include cement, iron and steel, and aluminium<sup>2</sup></li></ul>	<ul style="list-style-type: none"><li>– ETS scheme to begin in 2026.<sup>3</sup></li><li>– Funding for CCUS projects through CfD scheme announced<sup>4</sup></li><li>– Green steel subsidies for vehicle manufacturers<sup>5</sup></li></ul>	<ul style="list-style-type: none"><li>– Brazilian Emissions Trading Scheme established<sup>6</sup></li><li>– Revenue generated by the ETS will be invested in industrial decarbonisation projects</li></ul>

*“Innovative CCS technologies will play a critical role in reducing emissions, particularly in facilities that face unique challenges because of their size, location, or industrial application”*

Republican Senator Shelley Moore Capito  
Chairman of U.S. Senate Committee on Environment and Public Works  
12 February 2025



1. [Steering the EU towards greater sustainable competitiveness](#). European Commission. 29 January 2025  
2. [China to expand national ETS to cement, steel and aluminum in 2024](#). International Carbon Action Partnership. Sept 2024  
3. [Japan To Mandate Emissions Trading For All Companies Emitting Over 100,000 Tons Of CO2](#). Carbon Herald. Nov 2024.


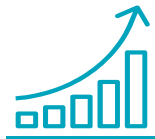


4. [China to Japan to commercialize carbon capture by 2030 as power demand grows](#). Nikkei Asia. Oct 2024  
5. [Green steel needs incentives to work and Japan has a plan](#). Reuters. Feb 2025  
6. [Brazilian Congress approves law establishing the Brazilian Emissions Trading System](#). Brazilian Federal Government. Nov 2024



# Business cases beyond decarbonisation



Calix’s core platform technology is designed to create significant customer value beyond incentives to decarbonise

	 <b>Processing waste fines</b>	 <b>Increasing production &amp; competitiveness</b>	 <b>Enabling lower energy costs</b>	 <b>Grid stabilisation services (in development)</b>
<b>Problem / Opportunity</b>	<ul style="list-style-type: none"> <li>Fines materials are a byproduct of the mining and crushing of ores.</li> <li>Examples include iron ore fines, spodumene flotation fines, and limestone dust.</li> <li>The small particle sizes of fines material make them difficult to handle and often not suitable for processing in conventional kilns.</li> <li>This leads to large volumes of fines often being discarded as waste.</li> </ul>	<ul style="list-style-type: none"> <li>Cement plants can be capacity limited by constraints in the pre-heater tower.</li> <li>This is a particular challenge for older cement plants in the U.S. and Europe, leading them to rely on imports to meet demand.</li> <li>Modernising a cement plant requires substantial investment and risks significant disruption to production.</li> </ul>	<ul style="list-style-type: none"> <li>As low-cost renewable generation capacity grows, switching from conventional fuels to electricity can reduce costs of mineral processing.</li> <li>For cement, switching from conventional fuels to waste-derived alternative fuels can substantially reduce operating costs and carbon emissions. However, this is challenging for conventional cement processes to fully achieve.</li> </ul>	<ul style="list-style-type: none"> <li>Electricity grids must continually balance a variable demand with supply.</li> <li>As increasing amounts of intermittent renewable energy generation are incorporated into grids, daily and seasonal variation in supply is increasing, leading to greater volatility.</li> <li>Electrifying and integrating energy-intensive industrial facilities with the electricity grid may enable industrial facilities to provide demand-side balancing capabilities.</li> </ul>
<b>Calix’s solution</b>	<ul style="list-style-type: none"> <li>✓ Calix’s platform technology is well suited to the processing of fines.</li> <li>✓ Processing of fines can increase resource utilisation and capture more value.</li> <li>✓ Direct processing of fines can also avoid the need for pelletising fines, reducing costs.</li> </ul>	<ul style="list-style-type: none"> <li>✓ The Leilac technology has the potential to provide a cost-effective solution to increase production capacity at a cement plant by removing plant bottlenecks.</li> <li>✓ As such, installing the Leilac technology may support improved competitiveness and resilience of domestic cement production and reduce reliance on imports.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Calix’s energy agnostic platform technology is designed to enable plants to use the lowest cost energy source available locally.</li> <li>✓ The Leilac technology is being designed to enable full alternative fuel use.</li> <li>✓ Hybrid solutions are being designed to enable dynamic switching between energy inputs, potentially enabling producers to take advantage of periods of low / negatively priced electricity.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Calix is adapting its technology to enable industrial facilities to both increase and decrease their electrical load on demand.</li> <li>✓ This may create a valuable load balancing service for the grid, and new revenues for industrial facilities</li> </ul>



# Summary & Outlook



## FINANCIAL HIGHLIGHTS H1FY25

<b>Revenues increased</b> <ul style="list-style-type: none"><li>• Magnesita revenue up 8%</li><li>• Leilac revenue up 26%</li></ul>	<b>Cost-base reduced</b> <ul style="list-style-type: none"><li>• \$6m annualised savings from Jan 2025 onwards</li><li>• ~\$3m one-off costs in H12025</li></ul>	<b>Balance sheet remains strong</b> <ul style="list-style-type: none"><li>• \$22.1m raised</li><li>• At least 18-month runway for commercialisation and subsidiary/project funding</li></ul>
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## COMMERCIALISATION MILESTONES

<b>Lithium</b> <ul style="list-style-type: none"><li>• Mid-stream lithium demonstration plant project received \$15m WA government grant &amp; project commissioning now expected to commence in December quarter 2025</li></ul>	<b>Iron &amp; Steel</b> <ul style="list-style-type: none"><li>• ZESTY was recognised at COP29 as the global Outstanding Project by the Net-Zero Industries Award</li></ul>	<b>Cement &amp; Lime</b> <ul style="list-style-type: none"><li>• Leilac secured a \$15m grant from the Australian Government's Carbon Capture Technologies program for Project ZETA</li></ul>
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## OUTLOOK FOR 2HFY25

<b>Further revenue growth</b> <ul style="list-style-type: none"><li>• Expected revenue growth from Magnesita and Leilac</li></ul>	<b>Cost-savings take effect</b> <ul style="list-style-type: none"><li>• ~\$6m annualised cost savings from 1 January 2025 onwards</li><li>• Reduced Capex as Calix's contribution to PLS UJV nears completion</li></ul>	<b>Focus on priority commercial milestones</b> <ul style="list-style-type: none"><li>• Continued delivery of commercial milestones in cement &amp; lime, iron &amp; steel, lithium, alumina &amp; DAC</li></ul>
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# Q&A





# Appendix





# Glossary

Term	Meaning
Aluminium (Al)	Chemical element with the symbol Al
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 Agency
ASX	The Australian Securities Exchange
APVMA	Australian Pesticides and Veterinary Medicines Authority
ASRS	Australian Sustainability Reporting Standards
BATMn	Calix’s core kiln technology – electrified – for battery and catalyst materials production and other applications testing
BOD	Basis of Design
BOS	Basic Oxygen Steelmaking
CAGR	Compound Average Growth Rate (%)
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
CBAM	Carbon Border Adjustment Mechanism
CBP	Community Benefits Plan
CCS	Carbon Capture and Storage
CCU	Carbon Capture and Use
CCUS	Carbon Capture, Utilisation and/or Storage
CEA StAR	Centre for Environmental and Agricultural Solutions to Antimicrobial Resistance
CO <sub>2</sub>	Carbon Dioxide
Copper (Cu)	Chemical element with the symbol Cu



# Glossary

Term	Meaning
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
DE&I	Diversity, Equality and Inclusion
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
EIS	Employee Incentive Scheme
ESF	Electric Smelting Furnace – Used to convert Direct Reduced Iron (DRI) to iron suitable for a Basic Oxygen Steelmaking (BOS) process.
ESG	Environment, Social and Governance considerations
EU	European Union
ETS	Emissions Trading Scheme
FEED	Front-End Engineering Design
FID	Final Investment Decision
Fines	Small particles, which are usually very difficult to handle in mineral processing and are often discarded as waste
FY	Financial Year
GHG	Greenhouse gas, often measured in tonnes of CO <sub>2</sub> equivalent (tCO <sub>2</sub> e)
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 <sub>2</sub> -DRI	The process of directly reducing iron ore to metallic iron with hydrogen as the reductant



# Glossary

Term	Meaning
Hematite	A mineral that is an ore of iron
HILT CRC	Heavy Industry Low-carbon Transition Cooperative Research Centre
Hydrometallurgy	A metal recovery method used to obtain metals from ores and waste materials
HyGATE	German-Australian Hydrogen Innovation and Technology Incubator
IBCs	Intermediate Bulk Containers
IFRS	International Financial Reporting Standards
Iron (Fe)	The chemical element, represented 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
JV	Incorporated Joint venture
LCA	Lifecycle Assessment or Lifecycle Analysis, is a methodology for assessing environmental impacts associated with all the stages of a product or process
Leilac	Calix’s core calciner technology for Low Emissions Intensity Lime and Cement production with CO <sub>2</sub> capture of process emissions
LFP	Lithium Iron Phosphate – a battery cathode material
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
Manganese Carbonate (MnCO <sub>3</sub> )	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
Metallurgical Coal	Very high carbon coal
MgO	Magnesium Oxide



# Glossary

Term	Meaning
<b>MHL</b>	Magnesium Hydroxide Liquid
<b>MOU</b>	Memorandum of Understanding
<b>Nanoporous</b>	A material with a regular, porous structure, with a pore size generally less than 100 nanometres.
<b>Pelletisation</b>	The formation of pellets from finer materials to aid in handling
<b>PLS</b>	Pilbara Minerals, an Australian lithium mining company
<b>Potassium (K)</b>	Chemical element with the symbol K
<b>Process emissions</b>	Process emissions are inherent to the chemical reaction and are released directly and unavoidably from the chemical processing of raw material.
<b>SDGs</b>	The UN's Sustainable Development Goals designed to serve as a "shared blueprint for peace and prosperity for people and the planet, now and into the future."
<b>Siderite</b>	A mineral that is an ore of iron
<b>Spodumene</b>	A high lithium-containing ore, and the source of the majority of the world's lithium supply
<b>α-Spodumene</b>	A tight Li-crystal formation, from which extraction of Li is difficult
<b>β-Spodumene</b>	A loose Li-crystal formation, from which extraction of Li is much easier than the alpha-form
<b>Reduce / Reduction</b>	The process by which oxygen is removed
<b>Reductant</b>	A material that, through its chemical properties, carries out reduction
<b>RDF</b>	Refuse-derived fuel – a fuel produced from various types of waste
<b>Sponge Iron</b>	Iron Ore that has been reduced (had the oxygen removed) to form metallic iron
<b>Steel</b>	Mainly iron, with some carbon and other trace metals such as nickel, manganese etc depending upon the grade of steel being made
<b>TAM</b>	Total Addressable Market
<b>Tpa</b>	Tonnes per annum
<b>TRL</b>	Technology Readiness Level, as measured on the NASA scale
<b>UJV</b>	Unincorporated Joint Venture
<b>UNGC</b>	The United Nations Global Compact, the world's largest corporate sustainability initiative
<b>Wh / kWh</b>	Watt-hours / kilowatt-hours – a measure of energy
<b>ZEAL</b>	Calix's Zero Emissions ALumina technology
<b>ZESTY</b>	Calix's Zero Emissions Steel TechnologY
<b>ZETA</b>	Calix's 'Zero Emissions Technology Made in Australia' CCU project for zero emissions lime and cement in South Australia





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