

25 June 2024

US Direct Air Capture projects with Heirloom progress

Sydney, Australia | 25 June 2024 – Australian environmental technology company, Calix Limited (ASX: CXL) (“the Company”) is pleased to provide an update on progress with its Direct Air Capture (“DAC”) projects in partnership with DAC company, Heirloom. Under an exclusive technology licence agreement, Calix’s subsidiary Leilac Limited (“Leilac”) will provide its electric calcination and carbon capture technology to two Heirloom DAC facilities capable of removing up to ~320,000 tons¹ of carbon dioxide from the atmosphere per year.

Highlights:

- Heirloom has announced they will build co-located DAC facilities in Shreveport, Louisiana capable of removing up to 320,000 tons of CO₂ per year combined.
- A first facility will have a CO₂ removal capacity of ~17,000 tons per year and is expected to be operational in 2026.
- A second ~300,000 ton per year facility will be built in phases, with the first ~100,000 tons of capacity expected to come online in 2027.
- The ~300,000 ton per year facility is Heirloom’s contribution to Project Cypress, the U.S. Department of Energy (“DOE”)-supported DAC Hub that is eligible for up to \$600 million in government funding.
- The projects are also supported by up to \$10 million in economic incentives from the state of Louisiana.
- Heirloom is responsible for financing the projects, with no capital expenditure by Calix or Leilac.
- Heirloom will also pay Leilac for engineering services required to deliver the projects.
- Heirloom and Leilac have previously signed an exclusive, global and perpetual licence agreement for the use of the Leilac technology at all future Heirloom DAC facilities, subject to performance conditions being met.
- Heirloom and Leilac continue to develop their integrated DAC solution, including through ongoing research and development (“R&D”) activities at the Calix Technology Centre in Bacchus Marsh, Victoria.

Carbon dioxide removal is predicted to play a critical role in meeting global climate commitments. An estimated 1-10 billion tonnes of atmospheric CO₂ removal per year will be required to mitigate excess emissions and limit global warming to 1.5 °C.² Leilac’s partnership with Heirloom, brings together two complementary climate technologies to provide an efficient approach to atmospheric carbon dioxide

¹ 1 ton = 0.91 tonnes

² [IPCC Special Report on Global Warming of 1.5°C](#)

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removal by DAC.

Following the signing of a perpetual global licence agreement and a collaboration agreement in October 2023³, Leilac and Heirloom have continued to progress the engineering and design of DAC plants using Leilac's electric calcination and carbon capture technology. These designs have been supported by ongoing R&D campaigns using Calix's electric calciner pilot-plant at the Calix Technology Centre.

With support from the DOE and Louisiana Economic Development, Heirloom will build two DAC facilities in Shreveport, Louisiana using the Leilac technology. The first facility will have a CO₂ removal capacity of ~17,000 tons per year, with operations targeted to commence in 2026. The second 300,000 ton per year facility will be built in phases, with the first 100,000 tons of capacity expected to begin operations in 2027. The phased scale up approach is designed to enable technical, engineering, and operational learnings and efficiencies that support more cost-effective carbon dioxide removal at scale.

The 300,000 ton per year facility is Heirloom's contribution to Project Cypress, a DOE-supported DAC Hub eligible for up to \$600 million in government funding. In addition, the State of Louisiana will contribute up to \$10 million in economic incentives for the projects, reflecting bipartisan support for DAC in the state.

Under the terms of Leilac and Heirloom's agreements:

- Calix and Leilac will not contribute any capital expenditure to the projects.
- Heirloom will pay Leilac for associated engineering services and R&D activity.
- Heirloom will pay Leilac a minimum royalty of US\$3/tonne of CO₂ separated by the Leilac technology.
- Leilac will receive a higher, variable royalty rate based upon the volume of CO₂ capture capacity installed and the local CO₂ value, less the amortised cost of capital of the Leilac technology per tonne of CO₂ separated.
- Leilac will retain all intellectual property relevant to its technology.

For more on Heirloom and Leilac's combined DAC solution, collaboration and licence agreements, please refer to [Calix's ASX announcement](#) dated 30 October 2023.

Calix Managing Director and CEO, Phil Hodgson said: "Direct Air Capture is a huge potential market in the global effort to address climate change. Heirloom and Leilac's partnership and complimentary technologies deliver an innovative pathway to drive down DAC costs and be at the forefront of this exciting opportunity. It is pleasing to see the significant progress being made."

Heirloom CEO, Shashank Samala said: "We couldn't be more excited to be building these new facilities in Northwest Louisiana. These investments not only bring meaningful economic activity and job creation to the region, but also help to cement Louisiana as a leader in this new energy economy and further America's leadership on the global stage."

"Coming shortly after we opened America's first commercial DAC facility, this expansion in Louisiana continues Heirloom's strong momentum as we work toward billion-ton scale."

³ Calix ASX Announcement. [Leilac and Heirloom sign global licence and collaboration agreements for Direct Air Capture](#). 30 October 2023

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Image: Rendering of the 17,000 ton per annum DAC facility in Shreveport, Louisiana

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This announcement has been authorised for release to the ASX by the Calix Board of Directors.

About Calix

Calix Limited (ASX: CXL) is an environmental technology company solving urgent global challenges in industrial decarbonisation and sustainability.

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

With strong and increasing demand driven by global commitments to net-zero emissions, Calix is applying its core technology to the decarbonisation of cement, steel and alumina, sustainable processing of critical minerals, direct air capture of atmospheric carbon dioxide, and sustainable environmental products.

Each application of the technology is being deployed through a proven licensing, joint-venture and spin-out model. Subsidiary businesses focused on a specific application and target market accelerate commercialisation and enable a flexible equity funding model to support exponential growth.

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

Mars is for quitters.

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