



ASX / MEDIA ANNOUNCEMENT

Wednesday 1 June 2022

# Key commercial terms agreed for a Joint Venture following award of A\$20 million Federal Government Modern Manufacturing Initiative Grant

**BINDING MEMORANDUM OF UNDERSTANDING SIGNED BETWEEN PILBARA MINERALS AND CALIX SUPPORTING DEVELOPMENT OF “MID-STREAM” LITHIUM CHEMICALS OPPORTUNITY AT PILGANGOORA**

## KEY POINTS

- Following the award of a \$20 million grant from the Australian Government under the Modern Manufacturing Initiative (MMI) Manufacturing Translation Stream (refer ASX Announcement dated 17 May 2022), Pilbara Minerals and Calix have agreed key commercial terms for a joint venture (**Joint Venture** or **JV**) in an updated binding Memorandum of Understanding (**MoU**).
- The MoU contemplates the JV will be established for the potential development of a demonstration plant (**Demonstration Plant**) at the Pilgangoora Project with the aim of producing lithium salts for global distribution via an innovative midstream “value added” refining process utilising Calix’s patented calcination technology, as well as for the potential future commercialisation of the process.
- Upon formation of the JV, participating interests will be 55% Pilbara Minerals and 45% Calix with each party funding their share of operating and capital costs and licensing their technology into the JV.
- Calix will have a 10% in-kind contribution recognised on budgeted estimated construction costs of the Demonstration Plant in return for Calix providing an exclusive, worldwide, royalty free licence for its innovative calciner technology to the Joint Venture for lithium processing applications.

Pilbara Minerals (ASX: PLS) (**Pilbara Minerals**) and Calix (ASX: CXL) (**Calix**) (or the “**Parties**”) are pleased to announce they have reached agreement on key commercial terms for the formation of a Joint Venture between the parties for the future development of a Demonstration Plant, as well as for the potential future commercialisation of the (**Mid Stream Project**) process.

Pilbara Minerals’ Managing Director and CEO, Ken Brinsden, said:

*“Execution of the binding MoU with Calix further cements the great relationship developing between the two companies. Our common goal - to further decarbonise lithium raw material supply chains, is both an important overall objective and a key deliverable for the value in future mid-stream products.”*



Calix Managing Director and CEO, Phil Hodgson said:

*“Our work with Pilbara Minerals continues on great footing with key terms now agreed on the JV to develop, demonstrate, and ultimately commercialise, a new, low carbon lithium salt production process. I look forward to the next phases of the project, namely execution of a formal JV agreement during Q3 2022, and front-end engineering and design leading to a final investment decision in early 2023”.*

### **Proposed Commercial Terms for Joint Venture**

Pilbara Minerals and Calix have entered into an amended and binding Memorandum of Understanding (**MoU**), initially executed in May 2021 (refer ASX Announcement dated 11 May 2021).

The amendments to the MoU record the Parties' binding agreement for the following:

- the progression of Front End Engineering Design (**FEED Studies**) beyond the completed Scoping Study, supporting a final investment decision for the Demonstration Plant, which is targeted for early 2023;
- the generation of market samples from a pilot test work programme (**Pilot Testwork Programme**) for the execution of a market engagement program to help inform the marketability and selling price outcomes of the targeted “value added” lithium salt product to be produced; and
- for the Parties to negotiate in good faith on an exclusive and binding basis a formal Joint Venture Agreement for the funding and development of the Demonstration Plant and a potential future commercialisation pathway on terms materially consistent with the commercial terms agreed in the MoU and otherwise reasonable and customary for joint ventures of this kind.

Key commercial terms on which the Parties have reached agreement on in the MoU are set out in **Annexure A**.

The JV will be established upon the parties finalising and entering into a Formal Joint Venture Agreement which is expected to occur in Q3 2022.

### **Next steps:**

- Parties intend to finalise and execute the formal Joint Venture Agreement in Q3 2022;
- Market Samples – a continuous Pilot Testwork Programme to produce lithium phosphate samples for a detailed market engagement program will be undertaken to help inform the project of the likely marketability and selling price outcomes of the lithium phosphate salt product being produced;
- FEED Studies – progression of FEED Studies will be carried out to support a final investment decision to move forward with developing the Demonstration Plant and following its successful validation for the commercialisation of the technology across industry globally; and
- MMI grant execution – the Parties will liaise with the Australian Government to finalise the execution of the MMI grant funding.

*Release authorised by Ken Brinsden, Pilbara Minerals Limited's Managing Director and Phil Hodgson, Managing Director and CEO of Calix Limited.*



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## ABOUT PILBARA MINERALS

Pilbara Minerals is the leading ASX-listed pure-play lithium company, owning 100% of the world's largest, independent hard-rock lithium operation. Located in Western Australia's resource-rich Pilbara region, the Pilgangoora Operation produces a spodumene and tantalite concentrate. The significant scale and quality of the operation has attracted a consortium of high quality, global partners including Ganfeng Lithium, General Lithium, Great Wall Motor Company, POSCO, CATL and Yibin Tianyi.

While it continues to deliver a low-cost, quality spodumene to market, Pilbara Minerals is pursuing a growth and diversification strategy to become a sustainable, low-cost lithium producer and fully integrated lithium raw materials and chemicals supplier in the years to come.

Through execution of this strategy, Pilbara Minerals is positioned to become a major player in the rapidly growing lithium supply chain, underpinned by increasing demand for clean energy technologies such as electric vehicles and energy storage as the world pursues a sustainable energy future.

## ABOUT CALIX

Calix is a team of dedicated people who are urgently developing great businesses, leveraging our patented technology, that deliver positive global impact.

The core technology is being used to develop more environmentally friendly solutions for water treatment, CO<sub>2</sub> mitigation, biotechnology, advanced batteries, and more sustainable mineral and chemical processing.

Calix develops its technology via a global network of research and development collaborations, including governments, research institutes and universities, some of world's largest companies, and a growing customer base and distributor network for its commercialised products and processes.

Because there's only one Earth – Mars is for Quitters.

Website: <https://www.calix.global/>

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## FORWARD LOOKING STATEMENTS AND IMPORTANT NOTICE

This announcement may contain some references to forecasts, estimates, assumptions, and other forward-looking statements. Although the Company believes that its expectations, estimates, and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars (\$) and cents in this announcement are to Australian currency, unless otherwise stated.

Scoping and other technical studies in respect of the Mid-Stream Project have been undertaken to determine the potential viability of the demonstration plant and to reach a decision to proceed with more definitive studies and enter into a joint venture agreement. Each scoping study has been prepared to an accuracy level of +/-40% (for Capital costs) and +/-30% (for Operating costs). Each scoping and technical study is based on low-level technical and economic assessments and is insufficient to provide assurance of an economic development case at this stage or provide certainty that the conclusions of the studies will be realised. The results of the studies should not be considered a profit forecast or production forecast.



## Annexure A

Key commercial terms on which the Parties have reached agreement in the MoU include:

- prior to formation of the Joint Venture, the Parties will continue to undertake and fund the FEED Studies, Pilot Testwork Programme in accordance with their proposed participating interests in the Joint Venture and commence market engagement;
- the Joint Venture will be established for the development and ownership of the Demonstration Plant to demonstrate the commercial and technical viability of the Mid Stream Project and following which the Parties will consider the future potential commercialisation of the technology globally in the lithium processing sector;
- the scope and size of the Demonstration Plant will be determined following completion of the FEED Studies and as agreed by the parties;
- initial participating interests in the Joint Venture will be 55% Pilbara Minerals and 45% Calix, subject to customary dilution mechanisms;
- each Party will provide to the Joint Venture an exclusive royalty free licence in respect of their background intellectual property and technologies in respect of lithium processing applications with any new intellectual property or technology developed by the Joint Venture to be owned by the Joint Venture;
- the Demonstration Plant will be owned by the Parties in proportion to their participating interests;
- capital and operating costs for the Demonstration Plant will be funded by the Parties in proportion to their respective participating interests, however Calix will have a 10% in kind contribution recognised on the budgeted estimated construction costs of the Demonstration Plant in consideration of Calix providing an exclusive, worldwide, royalty free licence for its innovative calciner technology to the Joint Venture in respect of the lithium processing applications;
- grant funding received by the Joint Venture or either Party will be applied towards capital costs for the Demonstration Plant;
- an annual business plan and budget will be agreed as part of the Joint Venture including for the construction and operation of the Demonstration Plant and sale of "value added" lithium salt products produced from the Demonstration Plant with any net positive cash flows to be shared by the Parties in proportion to their participating interests;
- Pilbara Minerals will manage the construction and operation of the Demonstration Plant which is expected to be located at Pilgangoora and will supply spodumene concentrate to the Demonstration Plant on commercial terms consistent with market pricing; and
- following the successful validation of the Demonstration Plant, the Parties will seek to commercialise the technology with the Joint Venture having an exclusive worldwide right to license the technology to third Parties in respect of lithium processing applications. This includes a right for Pilbara Minerals to design, construct and operate a commercial scale plant under a licence from the Joint Venture on reasonable arms' length terms including payment of a 15 year royalty to the Joint Venture of 10% of the net operating profit.