

PILBARA MINERALS EXECUTES BINDING TERMS SHEET FOR LITHIUM CHEMICALS DOWNSTREAM JOINT VENTURE WITH POSCO

Landmark agreement paves way for development of a proposed 40ktpa LCE joint venture chemical conversion plant in South Korea, giving Pilbara Minerals a key strategic position in the burgeoning South Korean lithium raw materials market

HIGHLIGHTS

- Binding terms reached with South Korean conglomerate, POSCO, for the formation of an incorporated joint venture (JV) in South Korea to build and operate a 40ktpa LCE primary lithium hydroxide downstream chemical processing facility.
- Final agreement is subject to completing and approving the initial business plan and budget (including CAPEX and OPEX estimates), execution of definitive agreements and board approvals from both parties which are expected to occur in the December Quarter 2019.
- JV to be founded on POSCO's industry leading "PosLX" purification technology, producing high-grade lithium hydroxide and lithium carbonate chemicals.
- Pilbara Minerals will initially hold a 21% interest in the JV, with an option to increase to 30%, with its equity funding contribution determined on an initial "at cost" valuation entry price which will be based on a final estimated capital investment amount.
- The initial 21% investment in the JV will be largely funded through the previously announced A\$79.6M convertible bond agreement with POSCO.
- The equity funding contributions to the JV will be provided based on an agreed gearing ratio of approximately 50:50 with external debt expected to be provided to the JV Company.
- The existing offtake agreement for spodumene concentrate will be assigned to the JV and increased from 240ktpa to 315ktpa for the lesser of 20 years and the life of the Pilgangoora Project, which will supply the jointly owned 40kt LCE chemical facility.
- In recognition of the expanded offtake position, a US\$25M pre-payment will be made by the JV Company to Pilbara Minerals for the purpose of funding the Stage 2 expansion of the Pilgangoora Project.
- Landmark agreement further diversifies Pilbara Minerals' global customer base, is consistent with its strategic objective of becoming a fully integrated lithium raw materials company and provides it with exposure to the rapidly growing South Korean lithium market.

Australian lithium producer, Pilbara Minerals Limited (ASX: PLS) (Pilbara Minerals or the Company), is pleased to announce that it has finalised and executed a binding terms sheet with POSCO to proceed with the formation of an incorporated JV in South Korea to develop and operate a 40ktpa lithium hydroxide and carbonate chemical conversion facility (Conversion Facility).

The execution of binding JV terms represents an important next step towards obtaining respective board approvals and ultimately the development of the proposed Conversion Facility. However, the formation of the JV is subject to completing and approving an initial business plan and budget (including CAPEX and OPEX estimates),

execution of definitive agreements and Board approvals from both parties, which are all expected to occur in the December Quarter 2019.

The JV is consistent with Pilbara Minerals' long-term business strategy to become a fully integrated lithium raw materials company with a globally diversified customer base.

The new Conversion Facility will be expanded from 30ktpa to 40ktpa lithium carbonate equivalent (LCE) and supported by POSCO's leading purification technology "PosLX", together with the existing spodumene concentrate offtake agreement from Pilgangoora, which will be increased to 315ktpa (an additional 75ktpa from the 240ktpa originally proposed) over the lesser of 20 years and the life of the Pilgangoora Project.

The PosLX technology will be provided to the JV under a technology licence agreement for the life of the JV on commercial terms.

Pilbara Minerals' initial 21% participation in the JV will be largely funded through the previously announced A\$79.6M convertible bond agreement being provided by POSCO Australia Pty Ltd to Pilbara Minerals (see ASX: 28th February 2018). Funds from this convertible bond facility will become available upon formation of the JV and completion of other conditions precedent to the draw-down of the facility, which are expected to be satisfied during the December Quarter 2019.

Under the revised offtake terms, the JV will also provide Pilbara Minerals with a second ranking secured US\$25 million prepayment which will be used to partly fund the Stage 2 expansion of the Pilgangoora Project. The prepayment will be conditional on the consent of senior secured bond holders.

The timing for delivery of the expanded production capacity at Pilgangoora is expected to be aligned with the ramp-up requirements of the Company's key customers for their chemical conversion facilities, including the South Korean Conversion Facility. At this stage, this ramp-up schedule anticipates commencement of commissioning of the initial Pilgangoora Stage 2 expansion occurring during the December Quarter 2020 with first concentrates to be delivered to the POSCO JV thereafter.

As outlined in the Company's recent June 2019 Quarterly Report and a separate ASX announcement released today, the Company is currently exploring alternative project delivery strategies that may see the development of the Stage 2 expansion staged over time. In that way, the Company may better utilise latent capacity within the existing Stage 1 project and ultimately reduce the required upfront initial capital investment.

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

"We are delighted to have executed binding terms for our joint venture with POSCO, cementing our long-standing relationship with a world-class strategic partner in the rapidly-growing South Korean lithium raw materials market. This joint venture will give Pilbara Minerals significant exposure to one of the world's most dynamic and fastest growing markets for lithium chemicals, among Tier-1 South Korean battery manufacturers.

"Supply to the proposed South Korean chemical plant will also have the benefit of further diversifying our spodumene concentrate sales arrangements over time. We are very pleased to have the opportunity to partner with a company like POSCO and we are looking forward to the development of the JV Conversion Facility in tandem with the Stage 2 expansion of the Pilgangoora Project."

Pilbara Minerals will have the opportunity to make a staged 30% investment into the JV, by initially subscribing (at an "at-cost" valuation) for a 21% interest in the JV, with an option (at its election) to increase its interest by subscribing for a further 9% of the shares in the JV at any time up to six months after the commencement of commercial production at the chemical conversion plant.

Pilbara Mineral's equity investment in the JV will be based on the new JV Company having a gearing ratio of 50:50, with external debt expected to be provided directly to the JV Company.

The final estimated capital investment amount will be based upon an initial business plan and budget to be approved by both parties prior to formation of the JV.

The subscription price payable on exercise of the option for additional shares in the JV Company (to take Pilbara Mineral's participation to 30%) is based on the initial investment cost. This structure therefore provides Pilbara Minerals with added flexibility to stage its investment over time and reduces its exposure to its initial participating interest during the construction phase of the Conversion Facility.

Formal legal documentation (consistent with the binding terms sheet) is well advanced and the parties intend to complete formal documentation (including a formal shareholders agreement, updated offtake agreement and a technology licence agreement) and obtain requisite Board approvals in the December Quarter 2019.

PROPOSED JOINT LITHIUM CHEMICALS FACILITIES – SUMMARY

POSCO is developing a battery materials park in the Gwanyang Free Trade Zone of South Korea which will include the proposed Conversion Facility as one of its key components. The Conversion Facility will be supplied by spodumene concentrates provided from the continued expansion of the Pilgangoora Project.

The operation to date by POSCO of both a pilot scale and 2,500tpa demonstration plant utilising the PosLX conversion technology to manufacture a very high-grade lithium hydroxide has demonstrated a clear technical and viable pathway for the next step to establishing large-scale lithium chemical conversion and purification facilities.

The PosLX conversion technology developed by the POSCO team over the last 10 years is an industry-leading process that creates very high-quality battery grade materials, recycles reagents and, in turn, lowers the cost of spodumene chemical conversion for the commensurate production of high-grade lithium chemicals. This is particularly the case when targeting the high-growth battery grade hydroxide market, which is being increasingly favoured by South Korean battery manufacturers for the production of high nickel cathode materials.

POSCO's 2,500tpa chemical plant is the first facility in South Korea to commercially produce battery grade lithium carbonate and hydroxide. The PosLX technology can also produce battery grade or ultra-high purity lithium carbonate for both cathode and electrolyte production and therefore the plant can be considered to be dual-purpose (i.e. both lithium hydroxide and lithium carbonate chemicals production).

POSCO is considered to be a strong technology and operations partner in joint downstream chemical development given their extensive research and development and operating expertise it has in lithium raw materials technologies, cathode materials production and their significant growth aspirations in the battery materials sector.

The capital development costs of the proposed Conversion Facility are still under review, however Pilbara Minerals expects the cost to be largely consistent with those revealed for recently studied and/or under construction chemical facilities elsewhere, being in the range of approximately US\$15,000 to US\$16,500 per lithium carbonate equivalent tonne.

The actual capital cost estimate for the Conversion Facility is still under review by POSCO and therefore may differ. It will be subject to final approval by both parties prior to formation of the JV in an agreed business plan and budget. The Company will update the market once the final capital estimate is determined and approved by the parties.

Operating costs for conversion facilities producing higher purity lithium products typically range between US\$2,800 and US\$3,600 per lithium carbonate equivalent tonne. Estimated operating costs for the Conversion Facility are still under review and remain subject to approval of both parties in the agreed business plan and budget, however the Company expects that the operating costs of the Conversion Facility will be largely consistent with its industry peers.

The parties proposed project development timeline for the jointly owned Conversion Facility will see construction

works commence from the December Quarter 2019, with construction tentatively expected to be completed in April 2021 and commissioning of the facilities and commenced of production tentatively expected from early July 2021.

OVERVIEW OF PROPOSED JV STRUCTURE

The JV will be operated as a South Korean joint venture to be incorporated under South Korean law (“JV Company”).

The initial interests of the participants in the JV will be as follows:

- POSCO – 79%; and
- Pilbara Minerals (through a wholly owned subsidiary) – 21%.

PLS will initially subscribe for 21% and will have a call option granted by the JV Company to subscribe for additional shares in the JV Company to increase its percentage interest to 30% at the same initial subscription price.

Financing of the JV Company’s capital costs for the Conversion Facility is to be based on 50% equity and 50% debt.

Pilbara Minerals will fund its subscription price predominantly from funds subscribed under the Convertible Bond Agreement referred to above.

POSCO or its related entities will maintain a minimum 51% interest in the JV Company for the first 5 years. PLS and its related entities will maintain a minimum interest of 21% in the JV Company for 5 years.

The JV Company will be governed by a formal shareholders agreement and a board of directors comprising representatives of both POSCO and Pilbara Minerals.

The JV Company and its employees will manage the day to day operations of the JV and the Conversion Facility with certain matters reserved for decision of the board and shareholders.

Other terms customary for joint ventures have also been agreed including matters reserved for board and shareholder decision and pre-emptive rights for new issues and disposals of shares by a JV party.

The JV and its formation will be subject to certain conditions precedent, including:

- Pilbara Minerals securing funding and making a final investment decision to proceed with the Stage 2 expansion of the Pilgangoora Project;
- an initial JV business plan and budget being approved by the parties for the construction and commissioning costs of the Conversion Facility and through to commercial production;
- receipt of regulatory approvals for the formation of the JV from regulatory authorities in South Korea;
- execution of definitive agreements to give effect to the binding term sheet, including a shareholders’ agreement, a technology licence agreement and the amended offtake agreement; and
- respective board approvals from both parties including a final investment decision for the formation of the JV and construction and funding schedules by the end of the December 2019 Quarter.

Contacts:

Investors / shareholders

Ken Brinsden
Managing Director and CEO
Ph. +61 (0)8 6266 6266

Media

Nicholas Read
Read Corporate
Ph. +61 (0)8 9388 1474

ABOUT PILBARA MINERALS

Pilbara Minerals Limited (Pilbara Minerals – ASX: PLS) is a mining company listed on the ASX, specialising in the exploration and development of the specialty metals lithium and tantalum. Pilbara Minerals owns 100% of the world class Pilgangoora Lithium-Tantalum project which is one of the world's premier lithium development projects. Pilgangoora is also one of the largest pegmatite hosted tantalite resources in the world and Pilbara Minerals produces a tantalite by-product of its spodumene production.

ABOUT LITHIUM

Lithium is a soft silvery white metal which is highly reactive and does not occur in nature in its elemental form. It has the highest electrochemical potential of all metals, a key property in its role in lithium-ion batteries. In nature it occurs as compounds within hard rock deposits and salt brines. Lithium and its chemical compounds have a wide range of industrial applications resulting in numerous chemical and technical uses. A key growth area is its use in lithium batteries as a power source for a wide range of applications including consumer electronics, power station-domestic-industrial storage, electric vehicles, power tools and almost every application where electricity is currently supplied by fossil fuels.

ABOUT TANTALUM

The tantalum market is boutique in size with total global demand of approximately 1,700 tonnes of tantalum metal per year. Tantalum is primarily used in the electronics industry in the manufacture of capacitors for high-end applications like telecommunications and data storage. It is also used in semiconductors, engine turbine blades and medical implants. As well as providing ductility, toughness, corrosion resistance, thermal conductivity and heat resistance to various other applications.

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.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.