

EX-CHINA HPMSM PRODUCER TO PARTNER WITH FIREBIRD TO PRODUCE MN RICH BATTERY CATHODE MATERIALS

Highlights

- Agreement with **Taza Metal Technologies (Taza)**, one of only three current ex-China producers of high-purity manganese sulphate monohydrate (**HPMSM**) globally, to co-fund Firebird's manganese rich cathode research and development program.
- **Non-dilutive funding:** Taza to contribute US\$650,000 (~A\$1M) to fund FRB's advanced R&D program.
- **Firebird retains global LMR rights:** Any IP generated from this strategic alliance vest with Firebird with Taza granted rights to LMR technology within Kazakhstan only.
- **Superior Technology:** Reinforces international interest in Firebird's manganese-rich cathode processing technology and equipment technologies.
- **Continued Strategic Engagement:** Firebird has successfully demonstrated production of HPMSM with Firebird's technology and high efficiency kilns. Taza has issued an EOI to purchase five high-efficiency kilns following successful test work on low-grade manganese ore, creating potential revenue alongside the manganese rich cathode program.
- **Expanding global market position:** Aligns Firebird with one of the few emerging manganese chemical suppliers outside China, enhancing opportunities to capture demand from global battery supply chains.
- **Market backdrop:** Ford (Apr 2025) and GM with LG (May 2025) announced plans to commercialise LMR cathodes for next-generation EVs by 2030 and LMFP adoption is accelerating for EV and energy storage.
- **LMFP development progressing:** Firebird retains full ownership of all LMFP intellectual property currently under development. With demand in China growing exponentially and the global LMFP market forecast to exceed US\$20 billion annually by 2030, Firebird remains the only Western company producing LMFP through co-synthesis with HPMSM in solution – a patented process that delivers high quality at low cost.

Firebird Managing Director, Mr Peter Allen, commented:

"This agreement demonstrates and reinforces the value of Firebird's proprietary processes and technical expertise in manganese-rich cathodes and high-efficiency kiln design. It stands as a strong endorsement of our technology and further cements Firebird's position as a leader in the global transition to next-generation battery materials."

"LMFP is scaling today and LMR is next for higher-energy EV and storage applications. Firebird is positioned to deliver across both. We are proud to be working in partnership with Taza and look forward to advancing this program together. We are proud to be working in partnership with Taza on this first step, and look forward to building a strong, long-term collaboration as we advance this program together."



Australian-owned Firebird Metals Limited (ASX: FRB, Firebird or the Company) has entered into an agreement with Taza Metals Technologies (**Taza**) to co-fund the development of Firebird's lithium-manganese-rich (**LMR**) cathode laboratory program, (ASX: FRB 30 July 2025) and to expand this funding to include nickel cobalt manganese (**NCM**) cathode development.

Under the agreement, Taza will fund 50% of the US\$1.3 million lab-scale test work budget through staged instalments, with first two payments made prior to the commencement of each of the first two phases of work. Firebird retains global rights to LMR with Taza holding exclusive rights in Kazakhstan only.

The program is expected to run for 18 months, with test work to be led by Firebird's in-house technical team and specialist consultants, aiming to deliver samples and a full process package focused on strong capacity and long-life performance.

In addition to the co-funding agreement for cathode development program, Taza has previously provided Firebird an EOI (ASX: FRB 5 August 2025) for five high-efficiency kilns. The sale of these kilns could provide more than US\$10 million in revenue.

Firebird's entry into LMR cathode development represents a strategic expansion within Firebird's vertically integrated business and reinforces its key position as a comprehensive supplier of manganese-based materials for battery markets.

Market Context

- **LMFP:** Already emerging as a leading candidate for EV and energy storage applications, with Soochow Securities projecting it will replace **50% of current LFP usage by 2030**, creating a market exceeding **US\$20 billion**.
- **LMR:** Represents the next strategic step, having been identified by leading automakers as a key cathode material for next-generation EV platforms. LMR is also among the most promising chemistries for solid-state and semi-solid-state battery technologies.
- **High-energy applications:** eVTOL and humanoid robotics are additional growth markets requiring >300 Wh/kg energy densities, performance well suited to LMR's high specific capacity and elevated working voltage.

About Taza Metal Technology

Taza, based in Kazakhstan, is one of only three ex-China producers of high-purity manganese sulphate monohydrate (**HPMSM**) globally. The company plans to process lower-grade manganese ore (18–20% Mn) to produce 30,000 tpa of electrolytic manganese metal (**EMM**) and 45,000 tpa of HPMSM, targeting European markets. The project is designed to treat approximately 300,000 tonnes of ore annually, requiring substantial calcining capacity.

As part of the collaboration, Taza previously supplied a 3.3-tonne ore sample for trial work, with all associated costs covered by Taza. Firebird successfully completed the test program (ASX: FRB 12 May 2025) which demonstrated a significant reduction in energy consumption:



- Average energy use of 230 kWh per tonne of ore feed (inclusive of drying and kiln pre-heating) an approximate 50% reduction when compared with >400 kWh/t typically quoted for conventional rotary kilns by third-party suppliers,
- On a commercial-scale kiln, further optimisation is expected to deliver an additional ~25% reduction, lowering consumption to less than half that of conventional technology.

Firebird's technical team has a history of providing consultation and technical support to Taza, particularly around its HPMSM production, reinforcing the strength of the ongoing relationship between the two companies.



Image 1: Firebird's high efficiency test kiln



Image 2: Firebird's R & D centre

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This announcement has been approved for release by the Board.

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About Firebird Metals Limited (ASX:FRB)

Firebird Metals is an integrated manganese technology company for the EV and energy-storage markets.

The Company's state-of-the-art lab and research facility demonstrate full flow-sheet capability, from manganese ore to finished battery cathodes. Firebird pairs downstream processing know-how with proprietary technologies, including a high-efficiency kiln and advanced crystallisation, targeting lower cost and energy use and enabling near-term revenue via equipment sales and licensing.

Firebird is advancing an LMFP pathway to near-term production of high-purity manganese sulphate and an LMR program for next-generation cathodes.

Firebird also holds 234 Mt of manganese resources in Western Australia, led by Oakover (176.7 Mt at 9.9% Mn, including Indicated 105.8 Mt at 10.1% Mn¹) and Hill 616 (57.5 Mt at 12.2% Mn²). The Company can source manganese ore through third-party suppliers and stockpiles, with mining optionality retained within its broader portfolio.

JORC Compliance Statement

This announcement contains references to Mineral Resource Estimates, which have been reported in compliance with Listing Rule 5.8 and extracted from previous ASX announcements as referenced.

The Company confirms that it is not aware of any new information or data that materially affects the information previously reported and that all material assumptions and technical parameters underpinning the Mineral Resource Estimates continue to apply and have not materially changed.

¹ See ASX announcement dated 23 March 2023: Indicated Resource of 105.8Mt at 10.1%; Inferred Resource of 70.9Mt at 9.6% for global Resource of 176.7 Mt at 9.9% Mn.

² See ASX announcement dated 1 December 2021: Inferred Resource of 57.5 Mt at 12.2% Mn.

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