

ASX ANNOUNCEMENT

24 September 2024

FINAL CRITICAL PERMIT RECEIVED FOR OPERATION OF BATTERY-GRADE MANGANESE SULPHATE PLANT

HIGHLIGHTS

- Energy Permit received final key permit secured for the operation of the Company's battery grade manganese sulphate plant, to be located in Jinshi, Hunan Province, China
- All three critical permits Safety, Environmental and Energy received within four months, highlighting the experience and hard work of the Company's industry leading manganese sulphate team in China
- The Company's Chinese subsidiary Hunan Firebird Battery Technologies (HFBT) engaged Hunan Chemical Engineering Design Institute (HCEDI) to complete required energy reports and permit application process
- Firebird expects further reductions in energy consumption, following completion of testing of the pilot scale calcining kiln with results expected in the next 6 weeks
- Next key phase of work is the completion of preliminary design work including detailed 3D drawings over coming weeks
- Manganese sulphate plant Final Investment Decision (FID) expected in coming quarters

Firebird Metals Limited (ASX: FRB, Firebird or the Company) is pleased to announce the award of the Energy Permit for Company's proposed battery-grade manganese sulphate plant, which will be located in Jinshi, Hunan Province, China.

Following receipt of the Energy Permit, Firebird now holds all three key permits (Energy, Safety and Environmental) required for the operation of the Plant.

The Company has received all three permits in less than four months, which demonstrates the strong level of support from the Jinshi Government, experience and hard work of the Company's industry leading manganese sulphate team in China and long-term importance of Firebird as a low-cost and energy efficient producer of MnSO₄ and manganese tetroxide (Mn₃O₄).

For the Energy Permit process, Hunan Firebird Battery Technologies (**HFBT**) engaged Hunan Chemical Engineering Design Institute (**HCEDI**) to calculate energy consumption data per tonne for each product.

Importantly, with testing of the new energy efficient pilot scale calcining kiln underway at the Company's Pilot Plant in China, Firebird expects further reductions in proposed energy consumption levels to be achieved once testing and results are assessed in the next six weeks. Successful testing of the kiln could demonstrate significantly lower energy consumption by up to 80% and potentially further enhance the cost-efficiency of Firebird's proposed Plant.



The Company's low energy usage focus and capabilities, combined with the industry leading zero-waste process of the Plant, where all key inputs, reagents, customers and consumers of by-products from the production process which don't form part of the supply chain are located in close proximity to the plant, reaffirms the capabilities of the Company to become a near-term, low-cost and sustainable producer of $MnSO_4$ and Mn_3O_4 .

PERMIT APPROVALS STATUS

	PERMIT	STATUS
1	Project Initiation Permit by the NDRC (National	Granted
	Development and Reform Committee)	
2	Project Environmental Permit via the	Granted
	Environmental Impact Assessment (EIA) Document	
3	Project Safety Permit	Granted
4	Project Energy Permit via Energy Technology	Granted
	Evaluation Document	
5	Water and Soil Monitoring Permit	Granted
6	Workplace Health and Safety Permit	Granted
7	Social Stability Permit	Work commenced
8	Building and Construction Permit	Following completion of
		preliminary design

Firebird Managing Director Mr Peter Allen commented: "The Company is extremely proud to receive the Energy Permit, which is the final key permit required to allow Firebird to operate our battery grade manganese sulphate plant, in Jinshi, Hunan Province, China. Importantly, our team in China continue to focus on lowering our already impressive cost profile and ensure our operations meet the highest environmental standards.

"The receipt of the Energy Permit is another huge tick in the credentials of our proposed operations and is a result of the hard work of our team in China and the innovative technologies they have developed like the 5th Gen crystallisation reactor.

"We will look to lower energy consumption further and meet our primary objective of reducing energy usage throughout our process. Testing of our pilot scale calcining kiln, which boasts the potential to lower energy consumption by up to 80%, is underway and the team look forward to assessing and releasing results in the next 6 weeks.

"We have now been executing our LMFP battery strategy in China for 12 months and the progress we have made has been outstanding. We have delivered and completed on numerous workstreams and milestones and, through this, have set a strong platform to work towards a Final Investment Decision in coming quarters. I am very excited about the future of Firebird and we will continue to execute on our unique opportunity and vision to become a near-term, low-cost producer of battery-grade, highpurity manganese sulphate and tetroxide."

This announce has been approved for release by the Board.



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About Firebird Metals Limited

Firebird Metals is an advanced manganese developer focused on combining mining and downstream processing with a dedication to the advancement of the EV battery sector.

The Company is currently progressing its unique China-focused lithium manganese iron phosphate (LMFP) battery strategy, which will develop Firebird into a near-term producer of high-purity, battery-grade manganese sulphate, a key cathode material in LMFP batteries for electric vehicles.

Execution of this strategy will place Firebird at the forefront of manganese sulphate production, at a time when the use and demand for manganese in batteries continues to rapidly grow. Due to the low number of ASX-manganese developers and increasing use of LMFP by car manufacturers, Firebird is in a strong position to benefit from this growing market and deliver significant value to its shareholder base.

The Company also owns 100% of its project portfolio, located in the renowned East Pilbara manganese province of Western Australia, which boasts a total Resource of 234Mt^{1,2}, with exciting exploration and development growth upside. The portfolio is led by the flagship Oakover Project, which holds a Mineral Resource Estimate¹ of 176.7 Mt at 9.9% Mn, with 105.8 Mt at 10.1% Mn in an Indicated category.

The Company's other key Projects are Hill 616 and Wandanya which provide Firebird with compelling growth opportunities. Hill 616 contains an Inferred Mineral Resource² of 57.5Mt at 12.2% Mn and shares similar geological traits to Oakover. Wandanya is a high-grade exploration opportunity, with Direct Shipping Ore potential.

The Company is committed to generating sustainable long-term value and growth for stakeholders, through the implementation of best practice exploration methods while prioritising the well-being, health and environmental protection of its employees and communities it operates in.

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.