

The replacement of fossil fuels by electrification is the greatest energy transition in history

\$400bn

EV boom underway

But it's not just EVs

It's also offshore wind turbines, all forms of transport, domestic appliances, military equipment and a growing universe of clean energy applications.

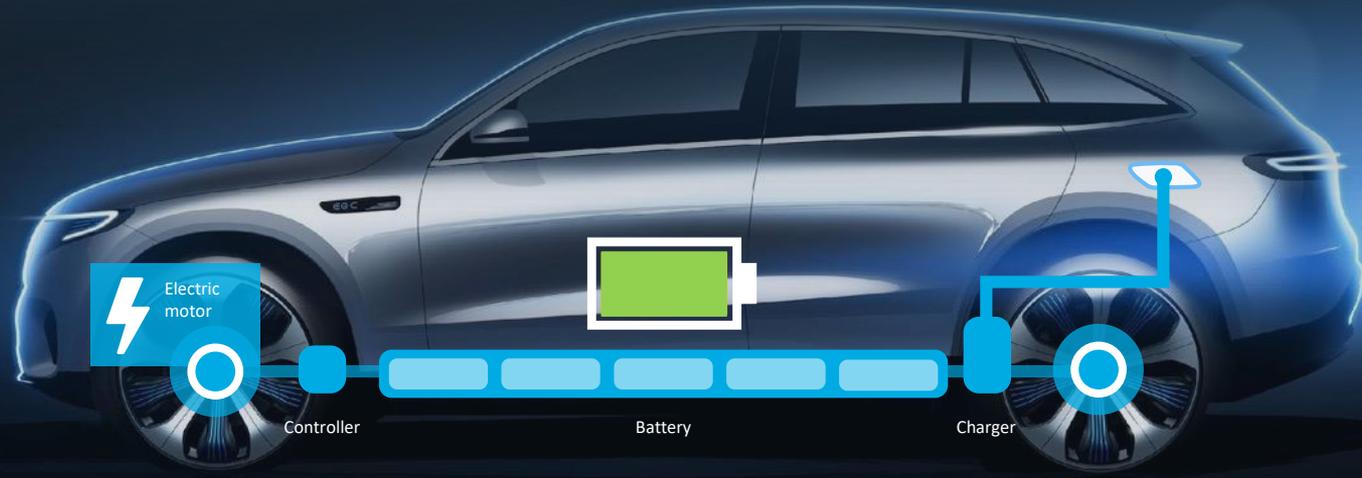
Which metal is going to be **the biggest beneficiary?**



CLUE: It's not one of the battery metals

Neodymium is the critical Energy Transition metal

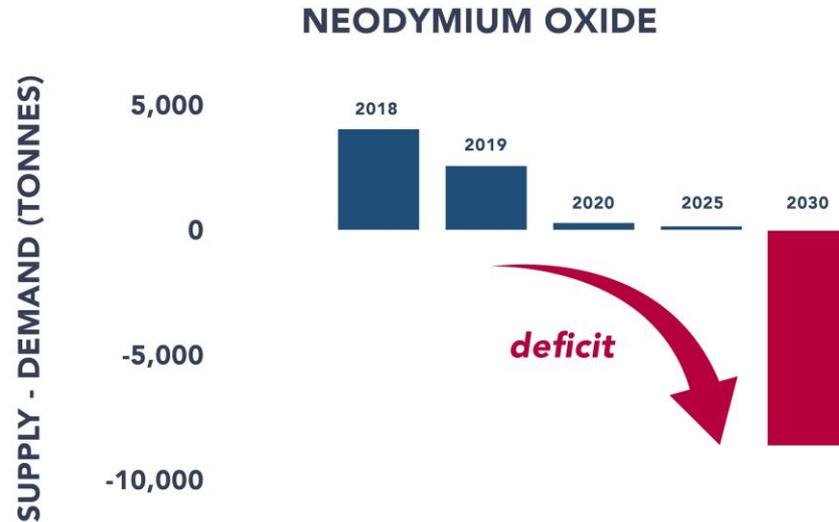
*Powerful NdPr Permanent Magnets are
the key to modern electric motors*



“Demand for neodymium oxide will substantially exceed global annual production leading to shortages of these critical magnet metals.”

Ryan Castelloux
Adamas Intelligence
Q2 2019

EVs will drive a 350% increase in demand for neodymium oxide by 2025



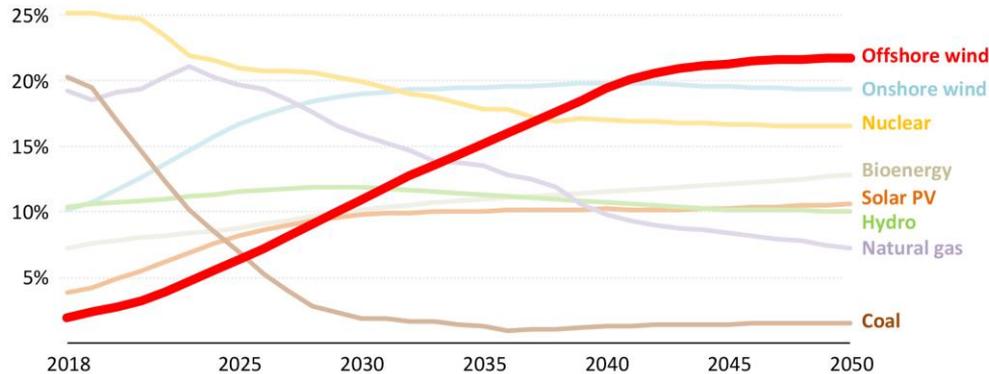
Source: Adamas Intelligence Q2 2019

Offshore Wind set to overwhelm demand from EVs growing at 1500% over the next 20 years

An EV uses **2 kilograms** of Permanent Magnets

A 5MW Offshore Wind turbine uses **3 tonnes**

China and EU plan to install 350GW equivalent to **60,000 turbines**



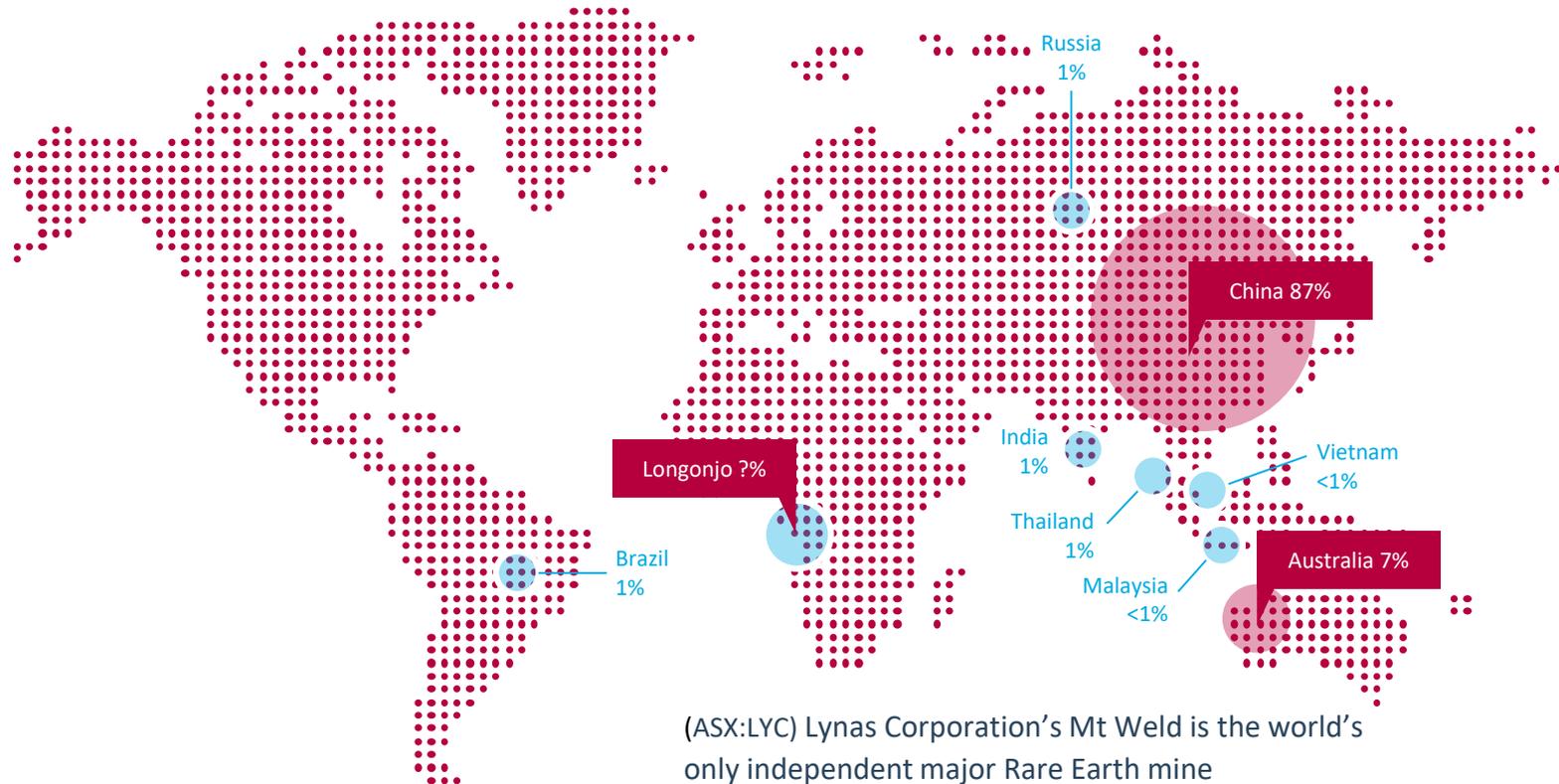
Offshore wind is set to become the largest source of electricity in the European Union by 2040

Source: IEA Offshore Wind Outlook October 2019



\$1trillion
Offshore Wind boom

Chinese companies control 87% of the world's magnet metal production

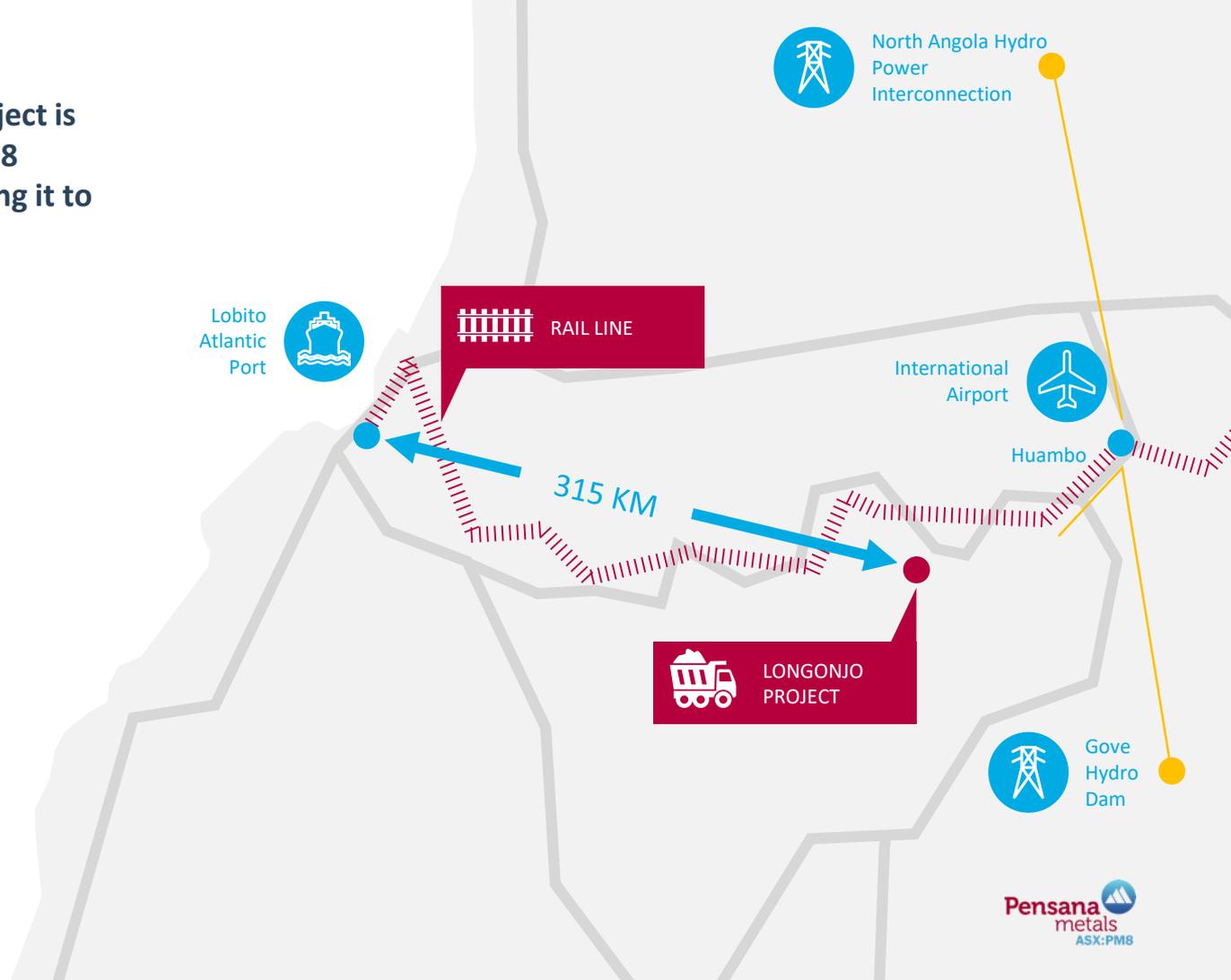


(ASX:LYC) Lynas Corporation's Mt Weld is the world's only independent major Rare Earth mine

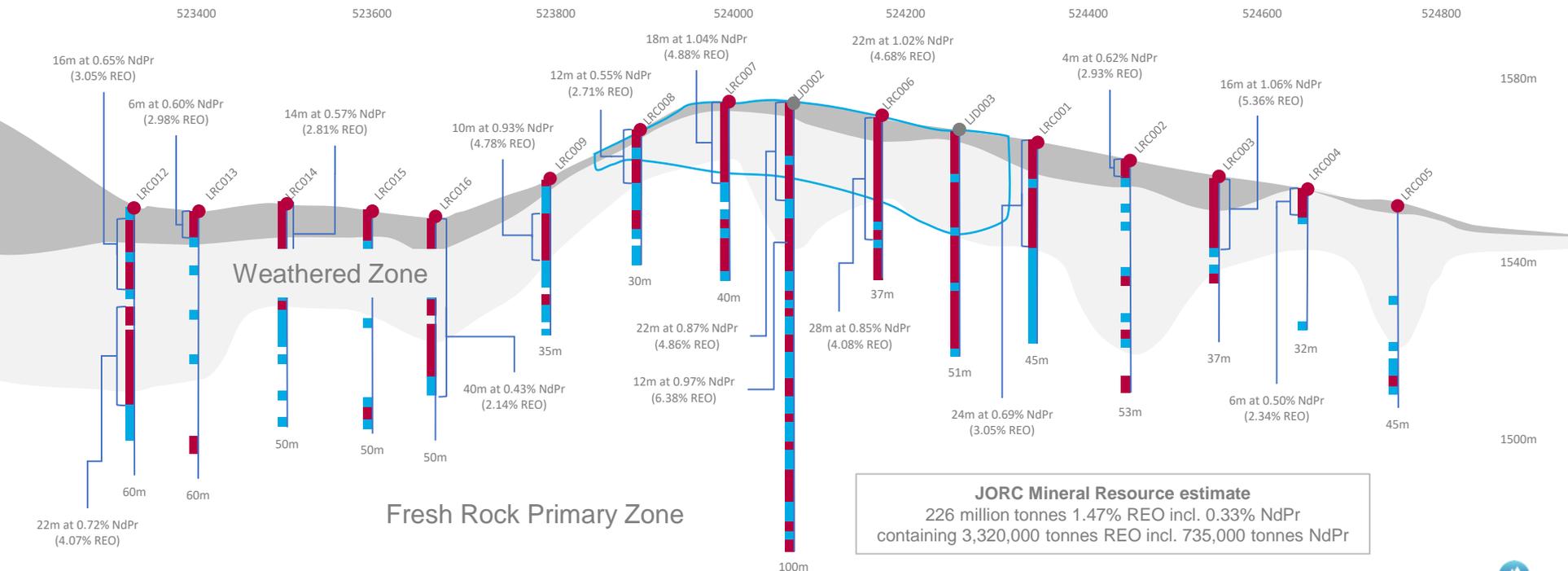
The world class Longonjo project is located adjacent to the US\$1.8 billion Benguela rail line linking it to the Port of Lobito.



Source: Port of Lobito E P



With a thick blanket of NdPr mineralisation extending over 1.5 kilometres Longonjo is one of the largest and highest-grade Rare Earth deposits in the world



Source ASX announcement: "First drill results extend NdPr mineralisation at Longonjo" of 31 October 2018 and "Mineral Resource estimate" 19 February 2019

“The fresh rock mineralisation underlying the weathered zone has reported some very good grades.

Preliminary met testwork suggests the potential is real and adds a whole new dimension to the project.”

COO Dave Hammond





The recently commissioned \$1.8 billion Benguela rail line links the project to the Port of Lobito

The Port of Lobito has recently been refurbished and has excess capacity for the Longonjo concentrates



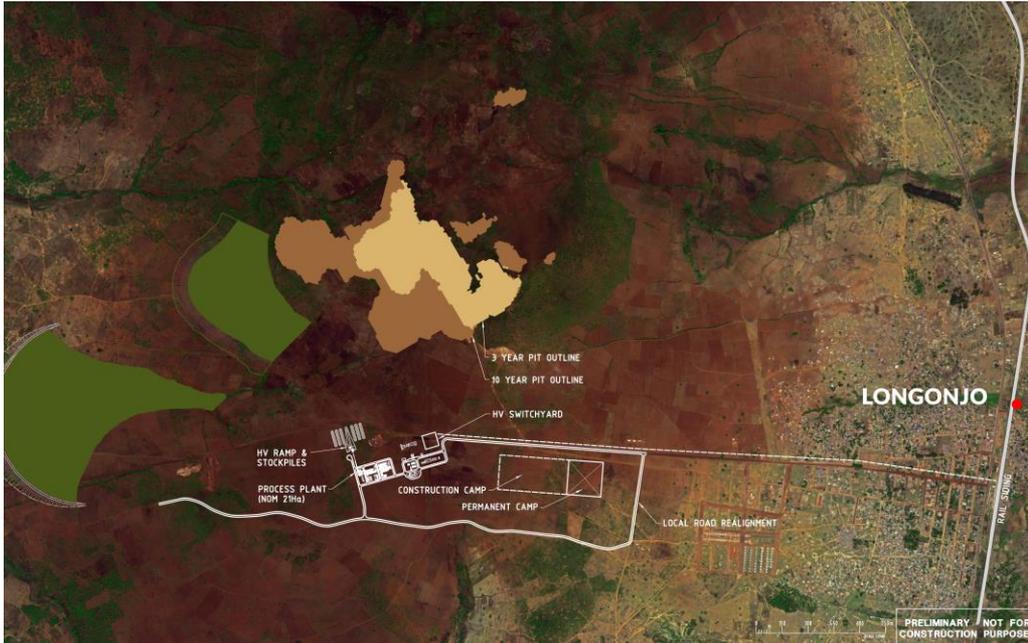
Since 2008 China has
invested over US\$20 billion
into Angola

*“The rail, power and port
infrastructure are some of the best
I have seen.”*

Tim George CEO
ex Anglo American



Wood Group Study: Access to world class infrastructure means very low Capital and Operating costs



Capital Cost of **US\$131 million** including 15% contingency

Operating costs **US\$1,323** per tonne of concentrate

Mining 2 mtpa of near surface weathered material and producing **56,000 tpa** of NdPr rich concentrate for export

No need for capital intensive chemical processing

The access to major rail, port and power infrastructure means that the **mine can export a concentrate** rather than having to invest in the complex and highly capital-intensive chemical processing required to produce an oxide.

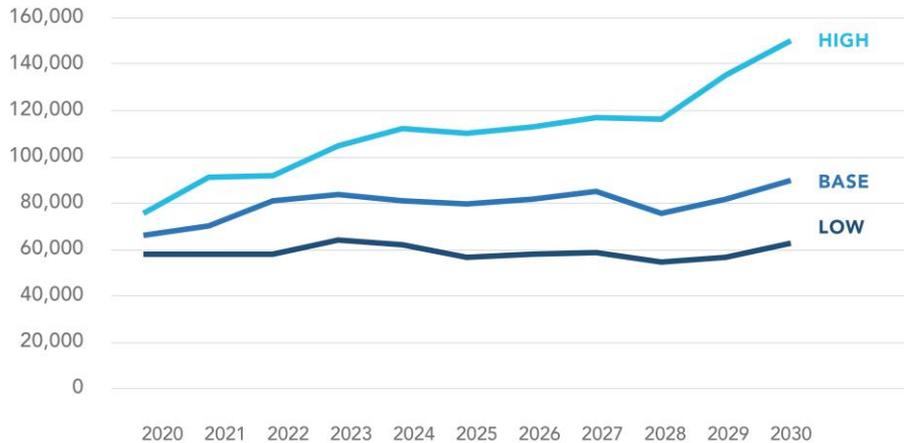
Ultra low capex and fast track to production

The mine and flotation plant can be constructed for **US\$131 million** and put into production in less than **18 months**.

World's #2 Rare Earth miner

When in production Longonjo will become **one of the world's largest producers** exporting around **4,600 tonnes of NdPr** in concentrate, second only to Lynas's Mt Weld which produces an estimated **7,100 tonnes** in concentrate annually.

Value of investment set to grow as Rare Earth prices rise with increased demand from EVs and Wind turbines



	GROSS REVENUE	EBITDA	PRE-TAX IRR	PAYBACK
	US\$ MILLION	US\$ MILLION	%	MONTHS
HIGH	2,733	2,068	129%	11
BASE	1,984	1,319	101%	13
LOW	1,448	782	64%	17

The project economics have been evaluated over the first 9 years of operations based on an upfront capital cost of US\$131 million and using Roskill's NdPr US\$/tonne price forecasts

Strong Board and Management team

Management team has extensive African experience and a strong project delivery track record

- Tim George CEO ex Anglo American
- Dave Hammond COO ex Peak Resources

Board has strong track record in mine financing and delivering exceptional returns to shareholders

- Paul Atherley Chairman previously Berkeley Energia Ltd
- Mark Hohnen NED currently Bacanora Lithium plc and Salt Lake Potash previously Kalahari Minerals, Extract Resources
- Neil MacLachlan NED previously Kalahari Minerals and Extract Resources.

Tight Shareholder ownership

ASX:PM8/PM8-AU

Market Cap US\$19 million

153 million shares on issue

164 million fully diluted

95 shareholders own 75%

Major Shareholders

Fidelity UK 9.9%

Selection Capital 5.7%

Richard Lockwood 3.4%

Ashanti Capital 2.3%

BPM Capital 2.3%

Mark Hohnen 2.2%

Arredo 1.6%

Designed to the highest ESG standards



The investment has been designed to meet the Equator Principles and Scope 1, 2 and 3 emissions under the Green House Gas protocol.



Access to low carbon power from the Luaca hydro-electric dam and local PV and storage facilities will enable a very low carbon footprint.



Closed circuit zero discharge for process water and tailings with full end of life rehabilitation.



Consultations underway for a positive impact on the local community by providing training for over 260 direct jobs and preparing local businesses to become service providers.



A particular focus is on the training of young women for technical and engineering roles.



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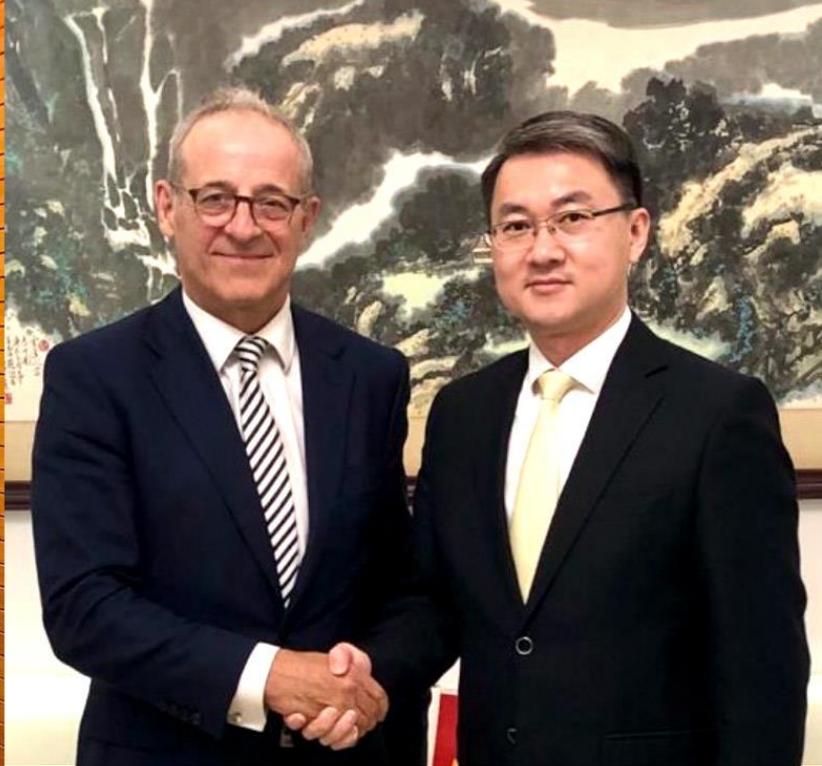
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The information in this report that relates to Geology, Data Quality and Exploration results is based on information compiled and/or reviewed by David Hammond, who is a Member of The Australasian Institute of Mining and Metallurgy. David Hammond is the Chief Operating Officer and a Director of the Company. He has sufficient experience which is relevant to the style of mineralisation and type of deposit it under consideration and the activity which he is undertaking to qualify as a Competent Person in terms of the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves. David Hammond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this statement that relates to the 2019 Mineral Resource estimates is based on work done by Rodney Brown of SRK Consulting (Australasia) Pty Ltd. Rodney Brown is a member of The Australasian Institute of Mining and Metallurgy and has sufficient experience that irrelevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 edition).

The Company confirms that it is not aware of any new information or data that materially affects the information included in the above original market announcements. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements.



Chairman Paul Atherley receives strong support for the investment in the Longonjo project from the Angolan Minister of Mineral Resources and Petroleum and the Chinese Embassy in Luanda