

LATROBE MAGNESIUM PRODUCES THE WORLD'S FIRST SUSTAINABLE MAGNESIUM OXIDE

- * Latrobe Magnesium (LMG) produces first Magnesium Oxide (MgO) from brown coal fly ash in the world.
- * LMG is the only new magnesium producer in the western world since 2015 with sustainable production emitting 60% less CO₂ than the industry average.
- * LMG processes 100% of the fly ash feed material to produce five valuable by-products with no further downstream waste or tailings.
- * Magnesium is classified as a critical mineral in multiple countries, with no current producers across Japan, North America, Europe, and the Middle East.
- * Demand for magnesium, particularly ex-China, is expected to grow significantly in the coming years with a significant portion of this demand expected from the automotive sector.

Investor Zoom Webinar 11AM AEST Monday 13 May

You are invited to register using this link:

https://us06web.zoom.us/webinar/register/WN_Qx77MY7qRsC0q7vTNV3qKA#/registration

Participants may submit questions during registration or during the session.

13 May 2024, Sydney, Australia: Latrobe Magnesium Limited (ASX: LMG) is proud to announce the completion of commissioning for the first phase of its 1,000 tonnes per annum, Stage 1 Demonstration Plant, successfully producing the world's first environmentally sustainable MgO from fly ash – a waste resource from brown coal power generation.

This marks a significant milestone in pioneering a sustainable magnesium extraction method, at an industrial scale, using our patented, world-first hydromet process demonstrating the significant value of LMG's intellectual property. The successful production of MgO from the Demonstration Plant is a testament to our innovative process and commitment to sustainable manufacturing.

Following this achievement and validating the hydromet process, LMG can now officially commence a bankable feasibility study and financing discussions, in relation to the 100%-contracted, 10,000 tonnes per annum Stage 2 Commercial Plant.

MgO production from the Demonstration Plant will be sold to Rainstorm Dust Control Pty Ltd in accordance with the MoU between the parties.



Figure: Environmentally sustainable Magnesium Oxide (MgO) produced using Fly Ash

World-First Magnesium Production Technology

LMG's patented hydrometallurgical extraction/thermal reduction technology is the only process capable of extracting magnesium from brown coal fly ash, and ferro-nickel slag tailing feedstocks. Converting nearly 100% of this unwanted waste resource into saleable products, this low-emission process produces magnesium metal with accompanying valuable secondary products at no incremental cost (which are expected to account for ~25% revenue), including:

- Magnesium Oxide
- Supplementary Cementitious Material (SCM)
- Silica
- Char
- Iron Oxide
- Agricultural Lime (Calcium Carbonate)

LMG's patented process not only reduces the operating cost of traditional magnesium and cement production methods but simultaneously reduces carbon emissions by as much as 60% compared to the industry average. Our patented process produces no further downstream tailings, ensuring environmental sustainability.

The Demonstration Plant is to produce magnesium metal and associated secondary products. A saleable magnesium metal is expected to be produced in the coming months.

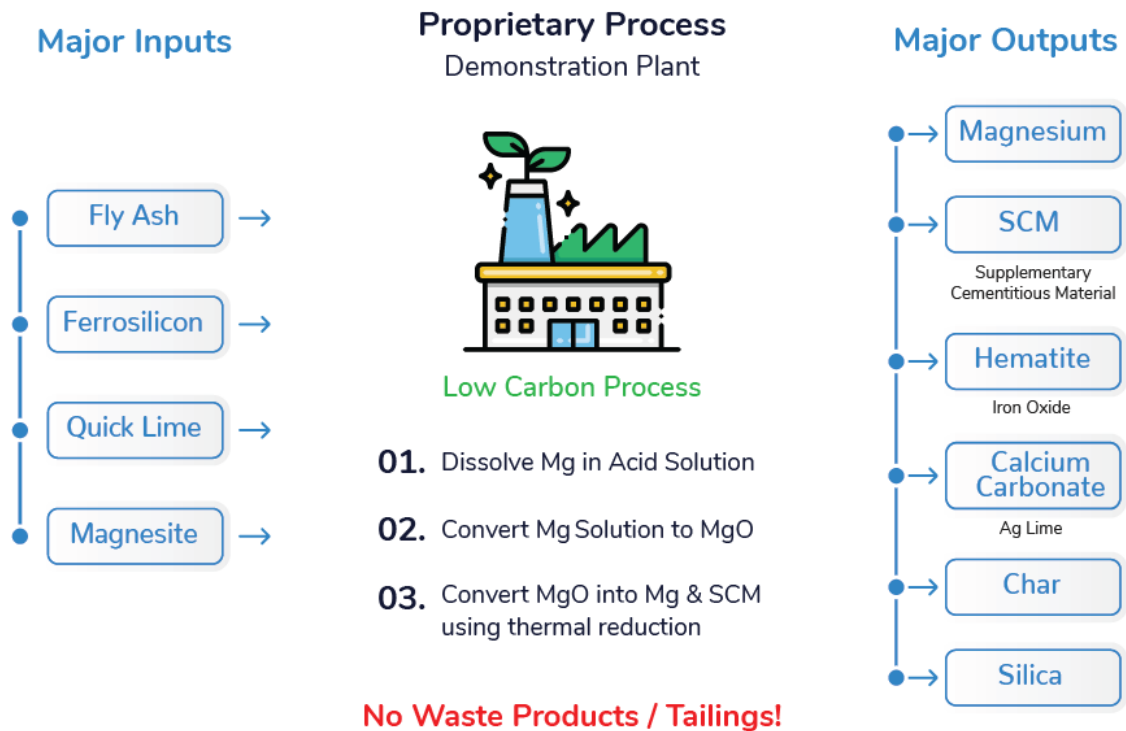


Figure: Patented proprietary process converting waste resources to valuable secondary products with zero waste

Demonstration Plant Development, Scalability and Flow Sheet

LMG's 1,000 tonnes per annum Demonstration Plant will have a similar flow sheet to the larger-scale 10,000 tonnes per annum Commercial Plant.

The Commercial Plant is to be constructed using similar engineering as the Demonstration Plant. Equipment will be larger scale, however, the scale required is not proportionate to the 10 times greater annual production of the Commercial Plant and therefore will be significantly relatively less capital intensive.

The Demonstration Plant was constructed by several local contractors, including Mechanical Maintenance Solutions Pty Ltd (structural, mechanical, and piping services), O&M Pty Ltd (electrical and instrumentation services) and Stirloch Constructions Pty Ltd (civil and earthworks services). These three contractors, amongst other vendors and suppliers being Tenova, Steuler-KCH Australia Pty Ltd, Fast Automation Pty Ltd, Coregas Australia, Stable Engineering, Custom Agency Services Pty Ltd, and Rockwell Australia Pty Ltd are formative of LMG's Strategic Supplier Program (SPP) for the Commercial Plant. The SPP will provide greater certainty of cost input and fast track information utilised in the feasibility study, which will inform the final investment decision at calendar year's end.

Commenting on the significant milestone, CEO of Latrobe Magnesium, David Paterson, said:

"We are incredibly proud of the results from our Demonstration Plant and the achievement of MgO production. The world's first flow sheet using a hydromet process is a testament to our technology, our staff and contractors involved in the process to date. As the only new Western producer, the importance of Latrobe Magnesium's production is globally significant, and this achievement validates our patented hydrometallurgical technology and years of research and development to get to this stage.

I would also like to take this opportunity to thank all the aforementioned employees and contractors, who have worked tirelessly to make this achievement possible and look forward to our continued success."



Figure: Demonstration Plant's Spray Roaster operating

Should you have any queries in relation to this announcement please do not hesitate to contact the CEO on his mobile 0421 234 688.

David Paterson
Chief Executive Officer

13 May 2024

About Latrobe Magnesium

Latrobe Magnesium is developing a magnesium production plant in Victoria's Latrobe Valley using its world first patented extraction process. LMG intends to extract and sell magnesium metal and cementitious material from industrial fly ash, which is currently a waste resource from Yallourn brown coal power generation.

LMG has completed a feasibility study validating its combined hydrometallurgical / thermal reduction process that extracts the metal. The demonstration plant has now produced MgO with the full plant being commissioned in the 3rd quarter of calendar year 2024.

A commercial plant will then be developed, with a capacity of 10,000 tonne per annum magnesium, shortly thereafter with completion targeted for 1st quarter of calendar year 2026. The plant will be in the heart of Victoria's coal power generation precinct, providing immediate access to feedstock, infrastructure, and labour.

LMG has sold its 10,000 tonne per annum of refined magnesium production under long-term contracts to LMG's USA distributors. Currently, Australia imports 100% of the 8,000 tonnes annually consumed.

Magnesium has the best strength-to-weight ratio of all common structural metals and is increasingly used in the manufacture of car parts, laptop computers, mobile phones, and power tools.

The LMG project is at the forefront of environmental benefit – by recycling power plant waste, avoiding landfill and is a low CO₂ emitter. LMG adopts the principles of a circular economy.