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## LMG MOVES TO LAST STAGE OF BANKABLE FEASIBILITY STUDY

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- Initial plant to produce 5,000 tonnes magnesium per annum from Hazelwood power station's fly ash
- World first technology to convert waste into valuable magnesium and cementitious material

**06 May 2016, Sydney Australia:** Latrobe Magnesium Limited (ASX:LMG) has successfully completed the second stage of its bankable feasibility study (BFS) of a plant to produce 5,000 tonnes of magnesium a year from the brown coal fly ash at the Latrobe Valley's Hazelwood power station.

The study, undertaken with the help of Mincore and BTE Engineering, is being completed in three stages:

- Stage 1**     October to November 2015  
Develop Metsim model for fly ash beneficiation process
- Stage 2**     January to April 2016  
Investigate process feasibility for reduction and calcining furnaces  
Prepare predictions of plant environmental emissions for approvals process  
Prepare + or – 25% capital cost estimates  
Prepare interim operating cost estimates  
Prepare updated financial model  
Prepare interim BFS report
- Stage 3**     May to July 2016  
Complete more detailed engineering  
Prepare + or – 12% capital cost estimates  
Prepare final operating cost estimates  
Prepare final financial model  
Prepare final BFS report

LMG's financial model also addresses the expansion of the initial plant's production capacity to a 40,000 tonnes a year, based on existing knowledge and estimates.

With the confidence gained from the second stage of the BFS results, the LMG Board has resolved that LMG will progress into the final stage of the BFS.

The second stage of the BFS has estimated the capital cost of the initial plant to be in the range between \$46 million and \$51 million. A number of areas have been identified that could produce capital cost saving and these will be investigated in the final stage of the BFS. The Company believes that it can raise these funds through a mixture of equity, debt and government funding.

LMG's financial modelling shows that the Project is economically viable and consistent with its previous prefeasibility and adjustment study projections. A summary of the operating revenues and costs together with the final capital costs will be released upon completion of the final stage of the BFS.

The BFS estimates that LMG will employ up to 55 workers in its first production stage. This number could increase to 150 employees when the plant is expanded to full capacity of 40,000 tonnes per annum.

As well as converting waste into valuable commodities, the proposed LMG plant will have a much lower carbon dioxide footprint than other magnesium plants, through:

- the use of MgO in the feedstock and not 100% MgCO<sub>3</sub> material;
- the use of natural gas as its primary power source;
- the sequestration of CO<sub>2</sub> in its hydromet process; and
- the production of cement with minimal processing.

The combined effect means that LMG should produce up to 18 tonnes less CO<sub>2</sub> per tonne of magnesium than its competitors.



**David Paterson**  
**Chief Executive Officer**

### **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 stream from brown coal power generation.

LMG has completed a pre-feasibility and an adjustment study validating its combined hydromet / thermal reduction process that extracts the metal. It is currently completing its feasibility study. Production from its initial 5,000 tonne per annum magnesium plant is due to start at the end of 2017. The plant will be in the heart of Victoria's coal power generation precinct, providing immediate access to feedstock.

LMG plans to sell the refined magnesium under long-term contracts to Australian and overseas users. Currently, Australia imports 100% of the 10,000 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 CO<sub>2</sub> emitter.