

## QUARTERLY ACTIVITIES REPORT

31 March 2017

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### LATROBE MAGNESIUM PROJECT

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#### **1. Hazelwood Closure**

On 31 March 2017, the Hazelwood Power station fully closed its operations. LMG has put a proposal to ENGIE-Hazelwood and is waiting for their response.

#### **2. Preliminary Feasibility Study**

The preliminary feasibility study was completed on 30 January 2017. In this study the engineers reviewed a number of options in relation to size of plant and capital and operating costs. The results of this evaluation determined that:

- a smaller 3,000 tpa plant is feasible;
- a new fast cycle reduction furnace would be superior to existing vertical retort designs; and
- fast cycle furnaces (FCR) offer a competitive advantage over other vertical retort designs.

The 3,000 tpa magnesium plant is estimated to break even or return a small profit and will provide the necessary information and confidence for LMG to proceed directly to a 40,000 tpa plant. The initial plant is estimated to employ up to 50 direct employees and contractors and the expanded plant estimate is the employment of approximately 300 people. Between 50 to 75 construction jobs will be created with the initial plant and up to 240 with the expanded plant.

LMG's engineers developed a work plan in the preliminary feasibility study based upon monthly timing for each element of the design, build and test stages for the FCR. This plan concluded that early works construction would start on the Tramway Road site in May 2017. The design of the FCR has been completed. The building of the FCR has been tendered and awarded. However, there will be a delay of 3 months in their delivery and assembly on site at the CSIRO. The testing of the furnaces will then take a further month. Once this work is completed in August the final feasibility study will be issued.

The preliminary feasibility study estimated the capital cost to be in the order of \$37 million. This estimate includes contingencies of \$4.5 million. LMG has estimated that it will require a further \$3 million for working capital purposes. The total funding required will therefore be \$40 million.

On 9 August 2016, LMG received a certificate for Advance Finding under Section 28A of the Industry Research and Development Act 1986 (Act). Under the Act, LMG has been registered for the next three years (2016, 2017 and 2018) and it is entitled to receive a cash rebate for 43.5% of all eligible expenditure on 11 activities that comprise the initial plant and its operating costs for the first 12 months of operations. The total rebate is estimated to be in the order of \$16 million.

With the completion of the feasibility study, LMG will be in a position to submit a formal application to the Victorian Government for consideration of LMG's grant request of up to \$12 million.

The balance of funds will be raised by a mixture of equity and debt from interested sophisticated investors and small cap financial institutions.

After completion of these funding arrangements, LMG expects to commence construction work on site in September 2017.

### **3. General Manager Operations appointment**

LMG has announced the appointment of David Wandmaker as its General Manager of Operations.

David is a process manager with extensive experience in power station operations and maintenance. He was employed in various roles with the SECV and the Yallourn Power station for some 34 years. His last 13 years have been in a project consultancy capacity providing services to three power stations in relation to operational procedures, occupational health and training.

David is based in the Latrobe Valley at Moe and he can be contacted on the following mobile and email addresses:

General Manager Operations  
Latrobe Magnesium Limited

Mobile: 0400 079 917

Email : [dwandmaker@latrobemagnesium.com](mailto:dwandmaker@latrobemagnesium.com)

David will be responsible for the efficient operation of LMG's magnesium plant to be located at 320 Tramway Road, the hiring of all the operational staff and the early construction program on site. The early construction program will be mainly civil and infrastructure on the site so that it is ready for the installation of the equipment packages as they are delivered to site.



David Paterson  
Chief Executive Officer

19 April 2017

## **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. Construction is estimated to start on its initial 3,000 tonne per annum magnesium plant in September this year with production commencing 12 months later. The plant will then be expanded to 40,000 tonne per annum magnesium 18 months later. The plant will be in the heart of Victoria's coal power generation precinct, providing immediate access to feedstock, infrastructure and labour.

LMG plans to sell the refined magnesium under long-term contracts to Australian and overseas customers. 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 CO<sub>2</sub> emitter. LMG adopts the principles of an industrial ecology system.