

## ASX ANNOUNCEMENT



23 January 2019

## Lithium Australia subsidiary VSPC successful in obtaining grant

### HIGHLIGHTS

- **VSPC Ltd ('VSPC') has obtained a co-funded grant from the Advanced Manufacturing Growth Centre ('AMGC').**
- **VSPC and its partners will further develop VSPC's technology, with a specific focus on the utilisation of lower-cost and recycled raw materials for the manufacture of lithium-ferro-phosphate ('LFP') cathode material.**
- **The project is co-funded by VSPC, its partners and AMGC, with AMGC providing matched grant funds of up to \$185,000**

### Overview

VSPC has successfully obtained a co-funding grant from AMGC to advance processes for the utilisation of high-grade iron materials and LFP from mineral sources and, importantly, from the recycling of lithium-ion batteries ('LIBs').

Raw materials make up more than half of the cost of producing LIB cathode materials, having the technology to utilise lower-cost raw materials and reuse materials from battery recycling are important competitive advantages for VSPC.

AMGC is a not-for-profit organisation established by the Australian Government to support the development of world-leading advanced manufacturing in Australia. The project involves a grant of up to \$185,000.

Partners in the project include Lithium Australia NL ('Lithium Australia') through its subsidiary companies Envirostream Pty Ltd ('Envirostream') and Resource Conservation and Recycling Corporation Pty Ltd ('RCARC'). There are two further partner organisations. The first, LIB-cell manufacturer DLG Battery Co. Ltd (Shanghai) will provide testing services to the project while the second, The University of Queensland, will supply analytical and material characterisation services for the project.

Envirostream operates a LIB recycling business in Australia and, among other materials, produces mixed metal dust ('MMD') from the processing of spent LIBs. RCARC has successfully converted the MMD into high-purity lithium phosphate, as well as nickel and cobalt products.



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**Comment from AMGC Managing Director Dr. Jens Goennemann**

“Advanced manufacturing in all its forms represents a significant opportunity for the Australian economy. AMGC is pleased to support VSPC as it moves to commercialise its groundbreaking lithium-cathode manufacturing process. VSPC’s project addresses several global challenges, particularly how to conserve precious raw materials, deal with battery waste and reduce landfill, all while reducing cost. VSPC and its partners are a further demonstration of the power of collaboration and the skills that exist in Australia to tackle such a complex process while turning waste into opportunity.”

**Comment from Lithium Australia Managing Director Adrian Griffin**

"This co-funding grant from AMGC is an important contribution to the sustainability of LIB manufacture. Society can no longer afford to tolerate the single-use mentality of past generations. VSPC’s initiative to advance the application of lower-cost raw materials is a significant step forward for the battery industry. We have a strong team and talented partners capable of delivering an outcome that will benefit the environment, consumers and shareholders alike. This is an opportunity to provide practical outcomes in advancing the circular economy, and I thank AMGC and our other partners for supporting this initiative, which will help conserve resources, reduce landfill and provide the opportunity for a comprehensive stewardship scheme that promotes the responsible use of batteries.”

Authorised for release by the Board.

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**About Lithium Australia**

Lithium Australia aims to ensure an ethical and sustainable supply of energy metals to the battery industry (enhancing energy security in the process) by creating a circular battery economy. The recycling of old lithium-ion batteries to new is intrinsic to this plan. While rationalising its portfolio of lithium projects/alliances, the Company continues with R&D on its proprietary extraction processes for the conversion of *all* lithium silicates (including mine waste), and of unused fines from spodumene processing, to lithium chemicals. From those chemicals, Lithium Australia plans to produce advanced components for the battery industry globally, and for stationary energy storage systems within Australia. By uniting resources and innovation, the Company seeks to vertically integrate lithium recycling, extraction and processing.



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## About VSPC

VSPC, a wholly owned subsidiary of Lithium Australia, has an R&D and pilot plant facility in Brisbane, Queensland. There, it has developed advanced processes for the manufacture of LIB cathode powders applicable to all LIB chemistries, including LFP and lithium-manganese-cobalt-oxide (NCM). VSPC's processes can be characterised as follows.

- Simple nanotechnology for superior battery cathodes.
- Precise control of composition and particle size.
- Unparalleled quality control.
- Low-cost production.

VSPC Ltd will in the first instance commercialise its process technology for the manufacture of cathode material for lithium-ferro-phosphate batteries.

## About AMGC

AMGC is an industry-led, not-for-profit organisation established through the Australian Government's Industry Growth Centres initiative. AMGC's vision is to transform the Australian manufacturing sector into one that is internationally competitive, dynamic and thriving, with advanced capabilities and skills at its core.

Through the delivery of its world-leading research, Manufacturing Academy, workshops and groundbreaking projects, AMGC aims to develop a highly skilled and resilient local manufacturing sector that delivers high-value products – via the integration of innovative technology – to both domestic and international markets.

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