ASX ANNOUNCEMENT

ACN: 126 129 413
ASX: LIT

Level 1
675 Murray St
West Perth WA 6005

PO Box 1088
West Perth WA 6872

Phone +61 (0) 8 6145 0288
Fax +61 (0) 8 9475 0847

info@lithium-au.com
lithium-au.com

13 February 2020

Federal government backs Lithium Australia's $3.6 million R&D programme for lithium recovery from fine and contaminated waste materials

HIGHLIGHTS

- **Lithium Australia has been awarded a grant by the Australian federal government's Co-operative Research Centre Projects ('CRC-P') initiative, to support the next stage of its $3.6 million LieNA® research and development ('R&D') programme for the recovery of lithium from fine spodumene.**
- **As part of CRC-P Round 8, which targets critical minerals, Lithium Australia will receive a grant totalling $1.3 million.**
- **Lithium Australia's LieNA® R&D programme will provide a pathway to commercialisation of this revolutionary processing technology.**
- **Leading researchers and companies participating in the LieNA® R&D programme include the Australian Nuclear Science and Technology Organisation, Murdoch University, Curtin University, Pioneer Resources Ltd, ALS Metallurgy Pty Ltd, Carnac Project Delivery Services Pty Ltd and Lithium Australia subsidiary VSPC Ltd.**

Introduction

Lithium Australia NL (ASX: LIT), together with the Australian Nuclear Science and Technology Organisation ('ANSTO'), has been researching and developing its proprietary technology for the recovery of lithium from spodumene (the most common hard-rock source of lithium for the production of critical battery chemicals). While the recovery rate of lithium from current spodumene concentration processes varies, it can be as low as 50%. Lithium Australia's LieNA® process is able to recover lithium from the fine spodumene in waste or tailings streams from such concentration processes.

LieNA® consists of a caustic digestion process, followed by acid leaching to recover the desired lithium chemical. Importantly, LieNA® does not require a roasting stage. Lithium Australia and ANSTO have already completed extensive bench-scale test work on the LieNA® technology, with final recovery of lithium reported as more than 85%.

Lithium Australia considers LieNA® a novel invention and has made patent applications seeking protection of this intellectual property.

The LieNA® process has the potential to not only expand current hard-rock lithium resources and reduce mining costs but also improve the sustainability of spodumene production and the subsequent manufacture of lithium chemicals.

ASX ANNOUNCEMENT

Federal Minister announces successful CRC-P projects

On 9 February 2020, The Hon. Karen Andrews MP, Federal Minister for Industry, Science and Technology, announced the successful CRC-P grant recipients for Round 8. This federal government funding aims to promote the development of critical minerals and "cement Australia's position as a critical minerals powerhouse, grow the economy and create new jobs."

Lithium Australia will receive $1.3 million from the CRC-P round 8 programme to progress the next development stage of its LieNA® technology, the total project cost of which is $3.6 million. Grant activity commences in February 2020 and is scheduled to end in March 2022, with the term of the grant ending on 30 June 2022.

$2.2 million to be spent on pilot plant trials

A significant proportion of the total project cost involves the design, construction and operation of a batch autoclave pilot plant at ANSTO's Lucas Heights facilities in New South Wales, Australia.

Lithium Australia's goal for the CRC-P grant

As a part of its aim of 'closing the loop' on the energy-metal cycle, Lithium Australia seeks to establish a position in the battery-raw-materials supply chain and provide a production pathway not constrained by the requirements of conventional spodumene converters. At present, fine spodumene is discharged to either waste or tailings by producers seeking to achieve the high-grade spodumene offtake demanded by the mineral concentrate market. In offering a novel method for processing this fine spodumene, LieNA® has the potential to unlock significant value for Australian hard-rock lithium producers (as well as projects in development).

Lithium Australia acknowledges the support of both the Australian federal government and the West Australian state government throughout the CRC-P process, including the selection of LieNA® for CRC-P grant funding. Further, Lithium Australia acknowledges the support and planned in-kind contribution of its grant partners, listed below.

- **Pioneer Resources Ltd** (ASX: PIO) will provide the spodumene ore sample for the programme.
- **ALS Metallurgy Pty Ltd** will provide specialist minerals-processing bench and pilot scale laboratory research to generate a bulk sample for pilot testing of the LieNA® process from the ore parcel.
- **ANSTO** will provide bench and pilot plant scale hydrometallurgical research services for the LieNA® process – piloting of LieNA® at ANSTO will generate lithium phosphate ('LP') via Lithium Australia's proprietary process technologies.
- **Murdoch University** will provide support to complete residue re-use research on process streams from LieNA®.
- **Curtin University** will provide support to complete solid-phase analysis on samples generated from the LieNA® pilot plant trials at ANSTO.

- **Carnac Project Delivery Services** will provide specialist process-engineering and cost-estimation support, leveraging the in-house technical expertise gained in its alkaline pressure hydrometallurgy for the alumina industry.
- **VSPC Ltd** (a wholly-owned subsidiary of Lithium Australia) will convert the LP generated from the LieNA® pilot plant research at ANSTO to lithium ferro phosphate ('LFP') cathode powder via its proprietary nanotechnology and will subsequently assess the performance of that LFP in lithium-ion batteries.

Comment from Lithium Australia managing director Adrian Griffin

"LieNA® has the potential to commercially recover lithium from fine and contaminated material discharged to tailings by the spodumene producers that currently achieve poor recoveries. If LieNA® can improve the viability of hard-rock lithium mining operations, its effects will be far-reaching. We applaud the federal government for recognising the significance of this project and welcome input from lithium producers who could benefit from a positive outcome for this research.

We appreciate the considerable contributions our partners will make and the expertise they can provide."

Authorised for release by the Board.

Barry Woodhouse
CFO and Company Secretary
Mobile +61 (0) 438 674 259
Barry.Woodhouse@lithium-au.com

Adrian Griffin
Managing Director
Mobile +61 (0) 418 927 658
Adrian.Griffin@lithium-au.com

About Lithium Australia NL

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 spent lithium-ion batteries to create new is intrinsic to this plan. While rationalising its portfolio of lithium projects/alliances, Lithium Australia 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, Lithium Australia seeks to vertically integrate lithium extraction, processing and recycling.

Media contacts

Adrian Griffin, Lithium Australia NL	08 6145 0288 | +61 (0) 418 927 658
Kevin Skinner, Field Public Relations	08 8234 9555 | +61 (0) 414 822 631