

ASX ANNOUNCEMENT



21 December 2021

Lithium Australia's revolutionary lithium-extraction technology advances towards commercialisation

HIGHLIGHTS

- Lithium Australia's LieNA[®] Cooperative Research Centre Project ('CRC-P') is progressing, with the autoclave for the pilot plant now tested and packed for transport to Australia.
- A 'Notice of Acceptance' received from IP Australia for Lithium Australia's next-generation LieNA[®] technology is another step towards grant of a patent for the process in Australia.
- LieNA[®] can process fine or low-grade spodumene (which is generally discarded as waste) without roasting to produce high-quality lithium chemicals for use as direct feed in the production of lithium ferro phosphate ('LFP') batteries.

Lithium Australia NL (ASX: LIT, 'the Company'), together with the Australian Nuclear Science and Technology Organisation ('ANSTO'), continues development of its next-generation LieNA[®] technology. LieNA[®] is a unique option for refining fine or low-grade spodumene (spodumene being the most common hard-rock source for the production of critical battery chemicals) to produce high-purity lithium phosphate as direct feed for LFP battery production in what is a booming LFP market. The Company is seeking patent protection for the process.

By targeting what is generally considered 'waste' spodumene, LieNA[®] has the potential to not only expand current hard-rock lithium resources (thereby reducing mining costs) but also enhance the sustainability of lithium chemical production from that resource.

Comment from Lithium Australia managing director Adrian Griffin

"Autoclave delivery for the LieNA[®] pilot plant puts us on track for commissioning in the first quarter of 2022. This furthers the momentum for LieNA[®] commercialisation.

"LieNA[®] can produce a range of high-purity lithium chemicals, including lithium phosphate, which is ideal for use as direct feed for the production of LFP cathode materials.

"Given the anticipated industry shift away from legacy technology, patent protection for the LieNA[®] process is a key strategy to ensuring that Lithium Australia can deliver ESG solutions to the lithium and broader battery industry. We encourage lithium concentrate producers to partner with us, in order to improve their recoveries, lower their operating costs and conserve our finite lithium resources."

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LieNA[®] CRC-P project

Last year, the Company was awarded a A\$1.3 million CRC-P grant to progress commercialisation of its LieNA[®] process ([see ASX Announcement 13 February 2020](#)).

A new 50l autoclave, an integral operational component of the LieNA[®] CRC-P pilot plant, has now undergone factory acceptance testing and been packed for transport to ANSTO's facility in New South Wales. Following installation and commissioning of the autoclave at ANSTO, the LieNA[®] pilot plant should be operational during the first quarter of 2022.

Next-generation LieNA[®] patent application – Notice of Acceptance

IP Australia is an agency of the federal government's Department of Industry, Innovation and Science that manages and grants patent applications in the Australian jurisdiction.

The subject of IP Australia's acceptance notice is the Company's patent application AU2019310188, filed in July 2019, which details the process for extracting lithium from an uncalcined lithium-bearing silicate and recovering the lithium as a lithium phosphate. The process is based on the pressure alkaline conversion of spodumene to lithium-rich sodalite, which is subsequently subjected to an acid leach to recover the lithium. This process, including the impurity-removal steps, is trademarked LieNA[®].

Receipt by the Company of the 'Notice of Acceptance' from IP Australia on 9 November 2021 for its next-generation LieNA[®] patent application is an important further step towards the granting of a patent for the process. Based on normal approval timing, the Company expects the patent to be granted in Q1 of the 2022 calendar year, with legal protection lasting 20 years from the date of filing of the application.

The recent 'Notice of Acceptance' follows the grant of a patent for the first-generation LieNA[®] technology in Australia ([see ASX Announcement 6 April 2020](#)) and is further vindication of the value of the Company's IP.

Authorised for release by the managing director.

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About Lithium Australia NL

Lithium Australia aims to ensure an ethical supply of energy metals to the battery industry by creating a circular battery economy that enhances both sustainability and resource security. Reprocessing spent lithium-ion batteries to create new ones is intrinsic to this plan, with the Company operating Australia's only fully integrated mixed-battery recycling business.

Having rationalised its portfolio of lithium projects/alliances, Lithium Australia continues its research into, and the development of, proprietary extraction processes for the conversion of all lithium silicates (including mine waste), and of fines generally discarded

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during conventional spodumene conversion, to lithium chemicals, from which it will produce advanced cathode materials for the battery industry globally.

The Australian federal government has recognised the Company's progress through the awarding of substantial research grants designed to progress the nation's advanced battery capabilities.

By uniting resources and innovation, Lithium Australia seeks to vertically integrate lithium extraction, processing and recycling.

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