ASX ANNOUNCEMENT

22 September 2023

Final testing for Lithium Australia's LFP cathode material confirms high quality product

HIGHLIGHTS

- **Lithium Australia's lithium ferro phosphate (LFP) cathode material matches, or exceeds leading competitor products based on final independent testing by NOVONIX Battery Technology Solutions**
  - **Retained the highest capacity at fast charging rates and demonstrated superior stability compared to market leading samples**
  - **Performed in line with competitors during high temperature testing and retained an equivalent expected cycle life**
- **The positive results highlight the longevity of the product, while also confirming it as a strong use case in hot climate markets such as India and Southeast Asia**
- **Lithium Australia is leveraging the strong results to showcase its capability as an attractive alternative to existing LFP cathode material manufacturers concentrated in China**
- **The Company looks forward to continuing its ongoing commercial negotiations with a validated high quality product**

Lithium Australia Ltd (ASX:LIT) ("**Lithium Australia**" or the "**Company**") is pleased to announce that the independent testing of its LFP cathode material confirmed the product to be of a high quality, either matching or exceeding the competitor set across capacity, stability, and high temperature performance. Testing was completed by a leading expert in battery materials research and development services, NOVONIX Battery Technology Solutions Inc., a wholly owned subsidiary of NOVONIX Limited (ASX: NVX, NASDAQ: NVX). The final testing results follow the preliminary results released in April 2023[1] which assessed the Lithium Australia LFP against two leading commercial brands.

The results showed that Lithium Australia's LFP either matched or exceeded competitor product across all testing parameters:

- Retained the highest capacity at fast charging rates when compared to market leaders.
- Proven to be the most stable out of all tested samples, highlighting the product's safety and suitability for commercial grade energy cell design.

[1] Refer to ASX announcement, *VSPC cathode material independently tested*, 13 April 2023

- Cycle life performed in line with market leading products in both ambient (22°C) and high temperature (40°C) environments, highlighting the product's resilient characteristics and suitability for hot climate markets such as India.

The positive results from the independent testing highlights Lithium Australia's LFP product as being an attractive alternative to existing LFP supply which is heavily concentrated in China. This provides customers with a more diverse supply chain, de-risking potential political disruptions and over-reliance on a particular geography.

The Company is currently engaged in discussions with multiple parties across North America, Europe, India, South Korea, and Japan regarding potential partnerships for LFP offtake and development, and validation of its product serves as a strong negotiation tool.

Comment from Lithium Australia CEO & Managing Director, Simon Linge

"We are excited to receive such strong results for our LFP cathode material, validating our technology and proprietary production process. These results highlight how our product's performance can match or exceed the market leading competitors. We believe this important validation will help us to continue accelerating our ongoing commercial negotiations, seeking offtake agreements and potential partnerships. Ultimately, we remain steadfast on achieving large-scale commercialisation of our battery materials manufacturing capabilities."

Test Work Program

Testing battery materials to get meaningful results for cell lifetimes and the rate of cell degradation can be a time-consuming process, involving charge/discharge cycling of test cells over thousands of cycles. However, this data is vital to assess the quality of a cathode like LFP that is valued for its long cycle life and slow rates of degradation.

Lithium Australia's LFP has been tested by NOVONIX using their cell prototyping line and Ultra High Precision Coulometry ('UHPC') equipment, which allows highly accurate measurements of the electrochemical processes in a cell in short periods of time. This enables non-destructive testing of how battery chemistry is changing from cycle to cycle. UHPC allows for rapid selection of materials for favourable electrochemical properties, which correlate to long lifetime. In addition to UHPC testing, complementary cycle life testing was completed successfully. Lithium Australia's Energy LFP product and two commercial LFP products were tested with two different synthetic graphite counter electrodes, one from NOVONIX and a second from a leading tier 1 Chinese supplier. 1.0Ah stacked pouch cells were made from the six combinations of materials and a common benchmark electrolyte system. UHPC testing was performed at a slow current rate of C/10 for both charge and discharge (10 hour charge/discharge) at 40°C for 24 cycles. Cycle aging was performed at a C/3 charge and discharge (3 hour charge/discharge) at 22°C and 40°C.

Test Results

Independent testing concluded that all LFP-Graphite combinations tested show good capacity retention in UHPC and long-term cycling at 22°C and 40°C. Therefore, this material combination is a good choice for a long lifetime battery design and application. The final results of this study were in line with initial results announced on 13 April 2023 and support the high stability of Lithium Australia LFP demonstrated by UHPC and cycle aging. Cells with Lithium Australia LFP showed the lowest rate of capacity fade during UHPC testing and the highest electrochemical stability of the three LFP materials tested. Cells with Lithium Australia LFP and NOVONIX graphite demonstrated the strongest performance of all material combinations. Lithium Australia LFP performed similarly to the other two commercial cathodes during cycle aging testing over the 1,000 cycles trends and support +4,000 cycle life for Lithium Australia LFP product (at ambient temperatures). Cells with Lithium Australia LFP and NOVONIX graphite have retained about 95.3% of their initial capacity after 1,000 cycles at 22°C, compared to 91.3% for Lithium Australia LFP with Graphite #2.

Authorised for release by the Managing Director / CEO of the Company.

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Forward-looking statements

This announcement contains forward-looking statements. Forward-looking statements are subject to a variety of risks and uncertainties that it is beyond the Company's ability to control or predict and which could cause actual events or results to differ materially from those anticipated in such forward-looking statements.

About Lithium Australia

Lithium Australia is aiming to lead and enable the global transition to sustainable lithium production. The Company operates Australia's market leading lithium-ion battery recycler, develops leading-edge processing technology to produce lithium ferro phosphate (LFP), and develops patented lithium extraction technology. Lithium Australia's revenue-generating recycling business and technologies are well-placed to capitalise on growing global lithium-ion battery demand and provides diversification benefits to global supply chains.

About NOVONIX

NOVONIX is a leading battery technology company revolutionising the global lithium-ion battery industry with innovative, sustainable technologies, high-performance materials, and more efficient production methods. The company manufactures industry-leading battery cell testing equipment, is growing its high-performance synthetic graphite anode material manufacturing operations, and has developed an all-dry, zero-waste cathode

synthesis process. Through advanced R&D capabilities, proprietary technology, and strategic partnerships, NOVONIX has gained a prominent position in the electric vehicle and energy storage systems battery industry and is powering a cleaner energy future. To learn more about NOVONIX visit them on www.novonixgroup.com, LinkedIn and Twitter.