ASX ANNOUNCEMENT
(ASX: **NVX**)

15 May 2020

NEW MANUFACTURING METHOD FOR BATTERY MATERIALS – PATENTED BY NOVONIX

NOVONIX Limited (**ASX: NVX**) ("NOVONIX" or "the Company") is pleased to provide an update on breakthrough research coming from its research partnership with Prof. Mark Obrovac's group at Dalhousie University.

Through the research funded by NOVONIX BTS (NOVONIX's wholly owned subsidiary) in partnership with the Canadian government through the NSERC Industrial Research Chair program, Prof. Obrovac and his team have developed a breakthrough method that can be applied to the manufacturing of both anode and cathode materials for lithium-ion batteries called dry particle microgranulation (DPMG).

DPMG provides a method for synthesizing highly engineered particles through the consolidation of fine materials, that may otherwise be waste, into particles that can be tens of microns and suitable for use in lithium-ion batteries. The recent publication outlines methods of making spherical graphite for use in lithium-ion batteries with 100% yield where current methods have significant yield losses which increase the cost of manufacturing.

Patent applications protecting the DPMG process have been filed by NOVONIX under the commercialization arrangements with Prof. Obrovac and Dalhousie University.

NOVONIX Managing Director, Phil St Baker highlighted the importance of this technological breakthrough saying, "This method for particle synthesis shows great promise in making both anode and cathode materials. DPMG provides an incredible opportunity to improve upon graphite manufacturing processes with higher yield, lower cost and improved particle performance and we are excited about deploying this technology to continue to further enhance the competitive advantage of our PUREgraphite manufacturing process."

In addition to the ability to make graphite particles with no waste, the technique can be used to synthesize cathode materials such as $Li[Ni_{1/3}Mn_{1/3}Co_{1/3}]O_2$ (NMC) through a dry process with no waste water or materials. A typical facility producing 6,500 kg of NMC per day can generate 99,000 L/day of wastewater while also generating fine particle waste resulting in both negative economic and environmental impacts.

Prof. Obrovac discussed the results saying, "I believe that dry particle microgranulation represents breakthrough in reducing the cost, waste, and environmental impact of advanced powder production. In addition, it enables the bulk synthesis of never before seen designer materials, which could lead to enhanced performance.

In the Li-ion battery field, I believe this technology shows great promise for reducing battery costs and increasing battery performance; while simultaneously reducing the waste and environmental impact of battery production."

The results are receiving praise from the industry, including fellow Dalhousie Professor and NSERC TESLA Canada Industrial Research Chair, Prof. Jeff Dahn, commenting, "The paper "Engineered Particle Synthesis by Dry Particle Microgranulation" by Mark Obrovac and coworkers reports a breakthrough in low-cost synthesis of battery materials.

The ability to be able to synthesize both state-of-the-art positive and negative electrode materials with this method is truly exciting.

I believe that the onion-like morphology of natural graphite particles made from what would normally be considered waste is extremely important and could potentially lead to the best and least expensive graphites for lithium-ion cells. I believe that the ability to synthesize appropriately-sized dense particles of NMC and other positive electrode materials in a completely waste-free process, unlike the current methods used today by industry, has huge potential.

I congratulate the Obrovac team for their outstanding and innovative work done in the Chemistry department at Dalhousie University."

Dr. Chris Burns, CEO of Novonix BTS, said the invention of this methodology provides great opportunities to NOVONIX moving forward.

"DPMG is an incredible discovery as a method to produce battery active materials for both the anode and cathode while generating no waste. There are immediate opportunities to utilize this technique within our PUREgraphite business, as well as the ability to pursue unique cathode material synthesis methods that can decrease the cost of cathode active material such as NMC.

We are excited to continue to work with Prof. Obrovac and his great team to further develop this technology," Dr. Burns said.

A recent announcement from Dalhousie University:
(https://www.dal.ca/research/ResearchIntheNews/mediareleases.html)

was issued around the publication of these results which can be found in Cell Reports Physical Science:
(https://www.cell.com/cell-reports-physical-science/fulltext/S2666-3864(20)30057-6).

This announcement has been authorised for release to the ASX by the Managing Director, Philip St Baker.

ABOUT NOVONIX

NOVONIX LIMITED (ASX: NVX) is an integrated developer and supplier of high-performance materials, equipment and services for the global lithium-ion battery industry with operations in the USA and Canada and sales in more than 14 countries.

NOVONIX's mission is to support the global deployment of Lithium Ion Battery technologies for a cleaner energy future.

FURTHER INFORMATION

Greg Baynton
Executive Director NOVONIX
Phone: +61 414 970 566
Email: greg@novonixgroup.com

Philip St Baker
Managing Director NOVONIX
Phone: +61 438 173 330
Email: phil@novonixgroup.com