



NOVONIX Announces Results of Engineering Study on Proprietary All-Dry, Zero-Waste Cathode Synthesis Process

September 11, 2023

Engineering report on NOVONIX's proprietary cathode synthesis process highlights potential improvements over conventional cathode synthesis:

- *Capital expense intensity estimated nearly 30% lower*
- *Processing cost reductions estimated nearly 50% lower*
- *Estimated power consumption improvements of approximately 25%*
- *Removes the need for water in the material processing steps*
- *Eliminates other key waste byproducts including sodium sulphate (Na_2SO_4)*

BRISBANE, Australia, Sept. 12, 2023 (GLOBE NEWSWIRE) -- NOVONIX Limited (NASDAQ: NVX, ASX: NVX) ("NOVONIX" or the "Company"), a leading battery materials and technology company, announced today that Hatch Ltd., a global engineering consultancy firm, has delivered its report that evaluates NOVONIX's revolutionary all-dry, zero-waste cathode synthesis process ("NOVONIX process") with potentially significant cost and waste reduction improvements. Hatch was commissioned to conduct a commercial-scale capital and operating cost comparison study, as well as a high-level evaluation of plant emissions and impacts to natural resources between NOVONIX's patent-pending process and the conventional, wet process ("conventional process").

NOVONIX's all-dry, zero-waste cathode synthesis process was built upon Dry Particle Microgranulation, which requires fewer steps than the conventional process, while producing no sodium sulfate, reducing facility cooling water by an estimated 65% and eliminating the water needed for core materials processing. The Hatch study found that NOVONIX's process may potentially reduce power consumption by an estimated 25% and practically eliminate waste byproduct generation over the conventional process. These factors contributed to a potential processing cost reduction of an estimated 50% (excluding material feedstock costs) and potentially lower capital costs by an estimated 30%. Based on the scoping study comparing the two processes, NOVONIX's process is estimated to consume fewer natural resources, likely requiring essentially no reagents and generating fewer waste streams, and, as a result, is likely a more environmentally friendly and sustainable process than the conventional process.

"Hatch's study supports our expected outcomes of our all-dry, zero-waste cathode synthesis process, which shows the potential for significant cost reductions and environmental benefits", says NOVONIX CEO Dr. Chris Burns. "The cathode active materials market is projected to be greater than \$100 billion in 2030 and the opportunity to deploy this new process to the battery industry is significant. Importantly, NOVONIX's process is aligned with our mission of providing revolutionary clean energy solutions to the battery industry and further extends our competitive strengths in battery materials. Several potential customers and partners have already shown significant interest and this study validates the operating and capital cost savings achievable with our novel cathode synthesis process."

NOVONIX recently announced the commissioning of its 10 tonne per annum cathode pilot line in [July 2023](#) and shared that their cathode material matches the performance of leading cathode materials from existing suppliers in full-cell testing. The Company plans to use its pilot line to continue to strengthen its intellectual property portfolio and further demonstrate to potential customers the manufacturability of its long-life cathode materials and technology, including high-nickel and cobalt-free materials, along with their performance in industrial format lithium-ion cells. As the Company continues to advance its commercial engagements it is considering a pre-feasibility study to further advance the engineering and scale-up options for NOVONIX's all-dry, zero-waste cathode technology.

This announcement has been authorized for release by NOVONIX Chairman, Admiral Robert J. Natter, USN Ret.

About NOVONIX

NOVONIX is a leading battery technology company revolutionizing 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, visit us at www.novonixgroup.com or on

[LinkedIn](#) and [X](#).

About Hatch

Hatch is a global engineering consultancy firm that delivers innovative solutions to clients in the mining, metals, and energy industries. With over 68 years of experience and more than 11,000 professionals across almost 70 offices worldwide, Hatch has a proven track record of providing engineering and consulting services that drive value for clients.

For NOVONIX Limited

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Forward-Looking Statements

This communication contains forward-looking statements about the Company and the industry in which we operate. Forward-looking statements can generally be identified by use of words such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” or “would,” or other similar expressions. Examples of forward-looking statements in this communication include, among others, statements we make regarding our cathode synthesis process and our plans for our cathode materials pilot line. We have based such statements on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. Such forward-looking statements involve and are subject to known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, among others, the success of the technology results in industrial format lithium-ion cells, our ability to scale to other technologies, how discussions progress with potential buyers, and the accuracy of our estimates regarding cost savings, market size, expenses, future revenue, capital requirements and needs for additional financing, and regulatory developments in the United States, Australia and other jurisdictions. Detailed information regarding these and other factors that could affect our business and results is included in our filings, including the Company's most recent transition and annual reports on Form 20-F, particularly the “Operating and Financial Review and Prospects” and “Risk Factors” sections of those reports. Copies of these filings may be obtained by visiting our Investor Relations website at www.novonixgroup.com or the SEC's website at www.sec.gov. Forward-looking statements are not guarantees of future performance or outcomes, and actual performance and outcomes may differ materially from those made in or suggested by the forward-looking statements contained in this communication. Accordingly, you should not place undue reliance on forward-looking statements. Any forward-looking statement in this communication is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

Hatch disclaims any and all liability arising out of, or in connection with, any third party's use of, or reliance upon, information contained in this press release and the use of this information by any third party is at the risk of that party. The following items were excluded from the project scope of the Hatch project: offsite infrastructure and services; utility connections including water, gas and power; all services are assumed to be available at the site boundary; storage facility for effluent or solid residue are assumed to be discharged to environment or stored by a third party; costs of environmental and ecology related studies; no allowance for study costs (concept, prefeasibility and/or feasibility studies prior to detailed engineering/execution); land acquisitions and associated work land; schedule acceleration costs; schedule delays and associated costs, such as those caused by force majeure; permit applications; forward escalation beyond the estimate base date; government levies and taxes; sustaining capital costs; detailed owner's costs; and tailings or effluent impoundment costs.