Nano One Successfully Commissions Proprietary Agitator Equipment Boosting Throughput Capacity at Candiac Five New Patents Added to Global IP Portfolio

written by Raj Shah | August 20, 2025

Highlights

- The full-scale One-Pot™ reactor at the Candiac Operations has been upgraded with new proprietary agitator equipment
- This new equipment installation will increase throughput capacity by approximately 50%
- The increased capacity will result in reduced cost of production going forward
- Nano One continues to enhance technological edge with continued development work
- Five new patents for LFP, NMC, and LNMO cathodes added to the Company's IP portfolio

August 20, 2025 (Source) – **Nano One® Materials Corp. (TSX:NANO)(OTCQB:NNOMF)(Frankfurt:LBMB)** ("Nano One" or the "Company"), a process technology company specializing in lithium-ion battery cathode active materials (CAM), is pleased to report that it has successfully installed and commissioned a custom-designed and proprietary agitator in its commercial-sized 20,000 litre One-Pot reactor at its production facility in Candiac, Québec-further improving its cost performance, in

addition to supporting production scale-up and continued product commercialization, as well as optimizing plant design for the Company's future licensing business.

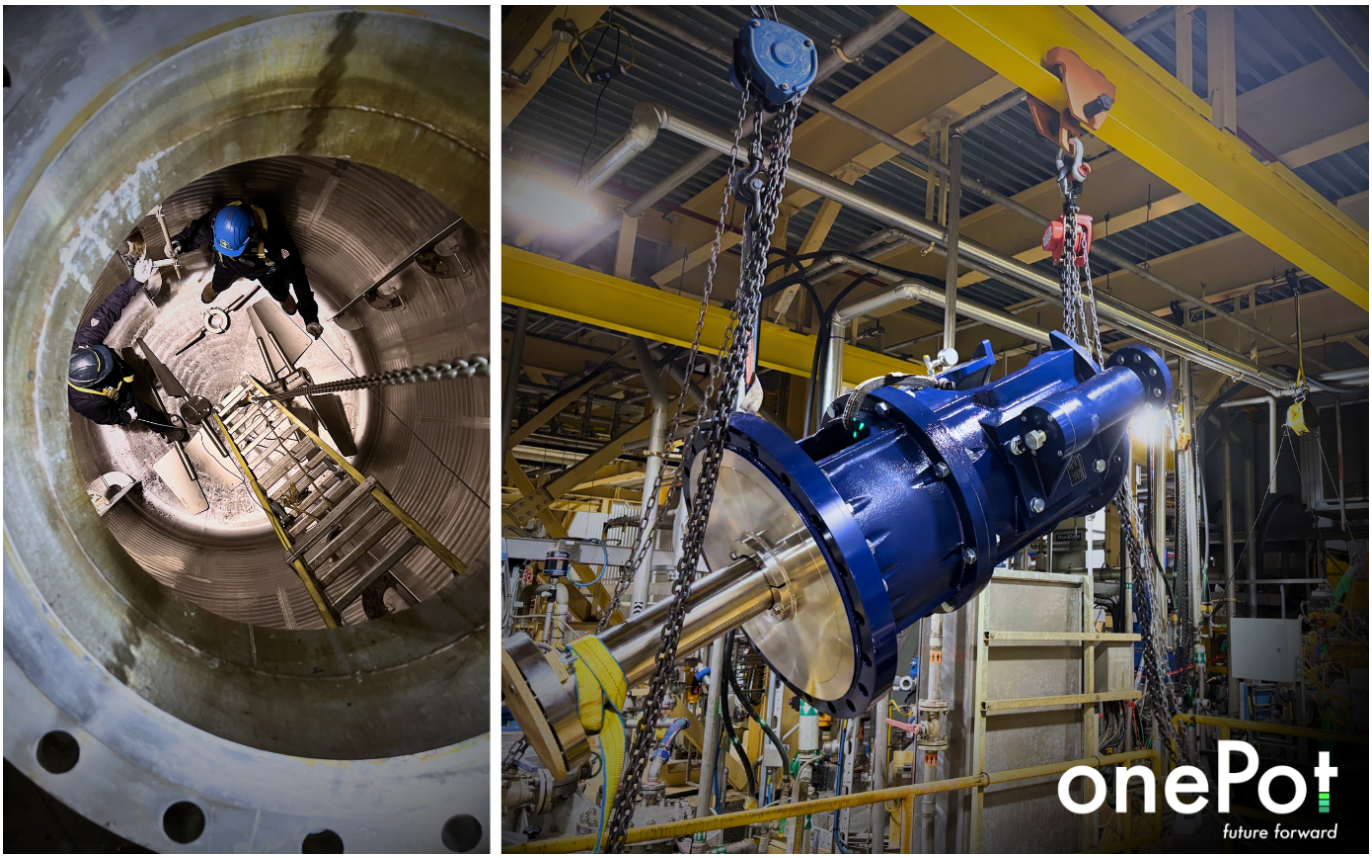

Image *One-Pot™ Reactor With Proprietary Agitator*

The newly installed, high-efficiency agitator has been engineered to enhance mixing dynamics, thermal transfer and reaction time and is estimated to increase the throughput capacity of the reactor by approximately 50%. It will also improve the consistency and quality of CAM output, while yielding reduced operating expenses (OPEX). The upgrade followed extensive piloting, data collection and modelling conducted on smaller 2,000-litre One-Pot pilot reactors, which were commissioned in October 2023.

"The successful commissioning of the new equipment marks an important milestone in the further optimization of the Candiac operations, which has been established as a One-Pot LFP

demonstration production plant," said Denis Geoffroy, Chief Commercialization Officer of Nano One. "The upgrade was achieved through the combined efforts of our engineering and production teams. With their decades of commercial experience, the teams have continued to focus on continuous improvement and cost competitiveness of the technology. This achievement underscores the scalability of the One-Pot process."

The upgraded agitator and reactor design is full-scale and representative of the systems planned for future One-Pot enabled commercial-scale plants. This upgrade will support ongoing product validation and business development initiatives with key customers and commercial partners, while reinforcing the value proposition of Nano One's One-Pot technology to prospective licensees. Many of these engagements have focused on a subset of customers across battery energy storage systems (BESS), which in the past eighteen months have seen robust global demand increases driven by accelerated growth in the AI data center, military, and grid optimization market segments.

The new equipment was sourced from a leading German manufacturer specializing in mixing technologies. Nano One continues to establish a robust equipment supply chain, which can be shielded from potential disruption and geopolitical risk-especially following China's July 2025 announcement imposing export restrictions on key equipment and technologies related to LFP cathode manufacturing.

This project is supported by funding and expense reimbursements from NRC IRAP Clean Technology Program (formerly SDTC), Investissement Québec, Technoclimat, and US Department of Defense (DoD).

Nano One Adds Five New Patents To Its IP Portfolio

Nano One is pleased to announce the allowance and/or issuance of

five new patents in North America and Asia to its portfolio of intellectual property (IP), bringing its total now to fifty-two granted, one allowed and fifty-four pending in jurisdictions around the world. These patents strengthen Nano One's independence from foreign controlled IP and enhance the Company's technological edge in a continually evolving market.

Recently Issued and/or Allowed Patents:

- **LFP**: United States Patent US 12,319,590 B2 issued on June 3rd, 2025:
  Describes an improved, scalable synthesis method for olivine-structured lithium metal phosphate cathode active materials
- **LFP**: Canadian Patent CA 3,068,797 allowed on April 3rd, 2025:
  Describes a synthesis of olivine-structured lithium metal phosphate cathode active materials
- **LFP**: Taiwan Patent TW I887600 issued on June 21st, 2025:
  Describes a method of preparing lithium metal phosphate (LMP) cathode active materials using metal feedstocks
- **Original M2CAM NMC**: Korean Patent KR 10-2791544 issued on April 1st, 2025: *Describes the M2CAM® technology using the One-Pot sulfate-free process for making lithium battery cathode materials*
- **LNMO**: United States Patent US 12,355,063 issued on July 8th, 2025:
  Describes a novel battery assembled with high voltage spinel LNMO cathode material made using the One-Pot process and paired with an electrolyte for high durability

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About Nano One®

Nano One® Materials Corp. (Nano One) is a technology company changing how the world makes cathode active materials for lithium-ion batteries. Applications include stationary energy storage systems (ESS), portable electronics, and electric vehicles (EVs). The Company's patented One-Pot process reduces costs, is easier-to permit, lowers energy intensity, environmental footprint, and reliance on problematic supply chains. The Company is supporting the drive towards energy security, supply chain resilience, industrial competitiveness and increased performance through process innovation. Production is being piloted and demonstrated in Candiac, Quebec, drawing on existing plant and decades of commercial lithium-iron phosphate (LFP) manufacturing experience. Strategic collaborations and partnerships with international companies like Sumitomo Metal Mining, Rio Tinto, and Worley are supporting a design-one-build-many licensing growth strategy-delivering cost-competitive, easier-to-permit, and faster-to-market battery materials production solutions worldwide. Nano One has received funding from the Government of Canada, the Government of the United States, the Government of Québec, and the Government of British Columbia. For more information, please visit **www.nanoone.ca**

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Cautionary Notes and Forward-Looking Statements

Certain information contained herein may constitute "forward-looking information" and "forward-looking statements" within the meaning of applicable securities legislation. All statements, other than statements of historical fact, are forward-looking statements. Forward-looking information includes but is not limited to: LFP production, joint ventures, contracted projects,

revenue generation, operational growth, licensing, government funding, the development of technology, supply chains, and plans for construction and operation of cathode production facilities; the Company's current and future business and strategies; estimated future working capital, funds available, and uses of funds, future capital expenditures and other expenses for commercial operations; industry demand; incurrence of costs; competitive conditions; general economic conditions; the intention to grow the business, operations and potential activities of the Company; the functions and intended benefits of Nano One's technology and products; the development and optimization of the Company's technology and products; prospective partnerships and the anticipated benefits of both the Company's current and prospective partnerships; the ability to attract and retain key talent; the Company's licensing and, the scalability of developed technology to meet expanded capacity; and the execution of the Company's stated plans – which are contingent on access to capital and grants. Generally, forward-looking information can be identified by the use of terminology such as 'believe', 'expect', 'anticipate', 'plan', 'intend', 'continue', 'estimate', 'may', 'will', 'should', 'ongoing', 'target', 'goal', 'potential' or variations of such words and phrases or statements that certain actions, events or results "will" occur.

Forward-looking statements are based on the current opinions and estimates of management as of the date such statements are made are not, and cannot be, a guarantee of future results or events. Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking statements or forward-looking information, including but not limited to: general and global

economic and regulatory changes; next steps and timely execution of the Company's business plans; the development of technology, supply chains, and plans for construction and operation of cathode production facilities; successful current or future collaborations that may happen with OEM's, miners or others; the execution of the Company's plans which are contingent on capital sources; the Company's ability to achieve its stated goals; the commercialization of the Company's technology and patents via license, joint venture and independent production; anticipated global demand and projected growth for LFP batteries; and other risk factors as identified in Nano One's MD&A and its Annual Information Form dated March 25, 2025, both for the year ended December 31, 2024, and in recent securities filings for the Company which are available at www.sedarplus.ca. Although management of the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements or forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements and forward-looking information. The Company does not undertake any obligation to update any forward-looking statements or forward-looking information that is incorporated by reference herein, except as required by applicable securities laws. Investors should not place undue reliance on forward-looking statements.