

#### NANO ONE MATERIALS CORP.

**Annual Information Form** 

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2024

**DATED MARCH 25, 2025** 

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#### INTRODUCTORY NOTES

#### **Date of Information**

In this Annual Information Form (the "AIF"), unless the content otherwise requires, references to the "Company" or "Nano One" mean Nano One Materials Corp., and its subsidiaries, collectively. Unless otherwise specified, all information in this AIF is as at December 31, 2024, with subsequent events disclosed to March 25, 2025.

# Currency

All dollar amounts are expressed in Canadian dollars unless otherwise indicated.

# **Cautionary Note Regarding Forward-Looking Information**

Except for statements of historical fact, this AIF contains certain forward-looking statements and forward-looking information within the meaning of applicable securities law, which are based upon the Company's current internal expectations, estimates, projections, assumptions and beliefs. Such forward-looking statements and information include, but are not limited to, statements or information with respect to: the Company's business plans and strategies; requirements for additional capital and future financing; ability to raise sufficient financing to continue its operations, and the related cost of capital; estimated future working capital; funds available; uses of fund; future capital expenditures and other expenses; the intention to grow the business; operations and potential activities of the Company; the anticipated demand of the industry and market acceptance of the Company's technology and products; the functions and intended benefits of the Company's technology and products; the commercial development of the Company's technology and products; facilities expansion and/or commercial production of CAM; entering into definitive agreements of any kind; the Company's piloting, demonstration, development projects, production trials, feasibility studies, and innovation activities; collaboration with materials producers; regulatory changes; the competitive conditions of the industry and the Company's competitive position in the industry; general economic conditions; intellectual property protection; anticipated joint development programs; the Company's short- and long-term business objectives and milestones, and the events that must occur to accomplish them; prospective partnerships and the anticipated benefits of those partnerships; industry demand; ability to obtain employees, consultants or advisors with specialized skills and knowledge; the Company's marketing efforts and potential licensing, supply chain, and royalty arrangements; the purpose for expanding the Company's facilities; and the anticipated future sales, revenues, and profit margins of the Company's operations.

Forward-looking information is frequently characterized by words such as "plan", "project", "intend", "believe", "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may" or "will" occur. Although the Company's management believes that the assumptions made and the expectations represented by such statement or information are reasonable, there can be no assurance that a forward-looking



statement or information referenced herein will prove to be accurate. Forward-looking statements are based on the opinions and estimates of management at the date the statements are made and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those anticipated in the forward-looking statements.

Factors that could cause actual results to differ materially from those in forward-looking statements include risks relating to: the imposition of tariffs, trade sanctions, guotas or other protectionist measures or the breakdown of trade relations; the impact of public health crises; research and development; general economic, market and business conditions in Canada and the United States, including reduced availability of debt and equity financing generally; risks relating to the effective management of the Company's growth; the Company's intellectual property applications being approved; the Company's ability to protect its proprietary rights from unauthorized use or disclosure; the ability of the Company to obtain additional financing or raise equity and/or debt financing on acceptable terms, and secure government assistance; the Company's limited operating history; the Company's ability to attract employees, consultants, or advisors with the necessary skills and knowledge; the need to comply with environmental and governmental regulations; the Company's ability to attract and retain customers and partners; fluctuations in currency exchange and interest rates; operating hazards and risks; the competitive nature of the industries in which the Company operates; competition for, among other things, capital and skilled personnel and management; the possibility of adverse developments in the financial markets generally; the Company's ability to obtain required regulatory approvals; geopolitical, political and economic conditions; geopolitical instability and conflicts; the results of litigation or regulatory proceedings that may be brought against the Company; changes in income tax laws; the Company's ability to effectively commercialize its technology; the ability for the Company to achieve broad market acceptance of its products; cybersecurity risks; the ability for the Company to continue as a going concern; corruption, bribery and sanctions, supply chain disruptions, industry risk; government grants; customer dependence; future revenue; and other risks and uncertainties.

The Company undertakes no obligation to update forward-looking statements and information if circumstances or management's estimates should change except as required by law. The reader is cautioned not to place undue reliance on forward-looking statements and information. More detailed information about potential factors that could affect results is included in the documents that may be filed from time to time with the Canadian securities regulatory authorities by the Company.

For a more detailed discussion of certain of these risk factors, see "Risk Factors". The list of "Risk Factors" set out in this AIF is not exhaustive of the factors that may affect any of our forward-looking information.



### **GLOSSARY OF DEFINED TERMS**

Unless otherwise defined herein, the following terms used in this AIF have the meanings set forth below:

"AI" Artificial Intelligence

"Board" means the board of directors of Nano One

"BCBCA" means the British Columbia Business Corporations Act

"Common Shares"

means the common shares in the capital of Nano One

"EV" Electric Vehicle

"ESS" Energy Storage Systems

"HVS" means High Voltage Spinel

"LFP" means lithium iron phosphate

"LNMO" means lithium nickel manganese oxide

"M2CAM®" means metal to cathode active material

"NI 51-102" means National Instrument 51-102, Continuous Disclosure

**Obligations** 

"NMC" means lithium nickel manganese cobalt

"NRC-IRAP" means The National Research Council of Canada Industrial

Research Assistance Program

"One-Pot process"

means Nano One's patented manufacturing technology

"SDTC" means Sustainable Development Technology Canada

"TSX" means the Toronto Stock Exchange Inc.

"SEDAR+" means the System for Electronic Document Analysis and Retrieval,

the electronic filing system for the disclosure documents of public companies and investments funds across Canada, available at

www.sedarplus.ca.

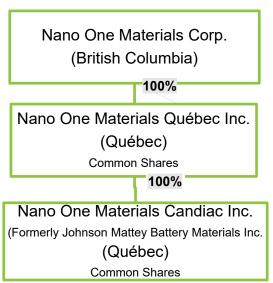


### **CORPORATE STRUCTURE**

### Name, Address, and Incorporation

The Company was incorporated under the laws of the Province of Alberta on November 5, 1987, and continued under the laws of the Province of British Columbia on September 8, 2004. On March 5, 2015, the Company completed a combination with Perfect Lithium Corp. ("**PLC**"), a private company incorporated in February 2011 under the laws of the Province of British Columbia, whereby it acquired all the issued and outstanding common shares of PLC in exchange for issuing Common Shares to the former shareholders of PLC. On July 1, 2015, the Company amalgamated with PLC and continued as one company under the name, Nano One Materials Corp.

On November 1, 2022, the Company closed the acquisition of Johnson Matthey Battery Materials Ltd. ("JMBM Canada") from Johnson Matthey, PLC via a subsidiary located in Québec, Nano One Materials Québec Inc. ("Nano One Québec"). Following closing of the acquisition JMBM Canada was renamed Nano One Materials Candiac Inc. ("Nano One Candiac").



The Company's head office is located at Unit 101B, 8575 Government Street, Burnaby, British Columbia V3N 4V1 and its registered and records office is located at 2900 - 550 Burrard Street, Vancouver, British Columbia V6C 0A3.

The Company's articles of incorporation were amended and ratified on October 14, 2021.

#### **CAPITAL STRUCTURE**

### **Authorized Capital**

The Company has an authorized share capital consisting of an unlimited number of Common Shares without par value. As at the date hereof, the Company had outstanding



111,443,526 fully paid and non-assessable Common Shares without par value (December 31, 2024 – 111,411,022).

### **Common Shares**

The holders of the Common Shares are entitled to receive notice of and to attend all meetings of the shareholders of the Company and have one vote for each Common Share held at all meetings of the shareholders of the Company. All of the Common Shares rank equally within their class as to dividends, voting rights, participation in assets and in all other respects. None of the Common Shares are subject to any call or assessment nor pre-emptive or conversion rights. There are no provisions attached to the Common Shares for redemption, purchase for cancellation, surrender, or sinking or purchase funds. In the event of dissolution, liquidation or winding up of the Company, whether voluntary or involuntary, or any other distribution of assets of the Company among its shareholders for the purpose of winding up its affairs, holders of the Common Shares will be entitled to receive the remaining property and assets of the Company.

As at the date hereof, 4,084,105 Common Shares are reserved for issuance under stock options granted, with a weighted average exercise price of \$1.79 per share.

As of the date hereof, 4,873,940 Common Shares are reserved for issuance for the award of restricted, deferred and performance share units ("RSUs", "DSUs", and "PSUs" respectively).

### **Market for Securities**

Common Shares of Nano One are traded on the TSX under the symbol "NANO". The following table outlines the share price trading range and volume of shares traded from January 1, 2024 to the date of this AIF.

	High	Low	Close	
Month	(\$)	(\$)	(\$)	Volume
January 1, 2024	2.48	1.78	1.84	3,748,680
February 1, 2024	2.11	1.52	1.93	2,621,214
March 1, 2024	2.01	1.60	1.84	1,906,662
April 1, 2024	1.89	1.58	1.80	2,275,683
May 1, 2024	2.23	1.51	1.69	2,296,997
June 1, 2024	1.74	1.31	1.40	2,987,702
July 1, 2024	1.42	1.05	1.10	2,603,509
August 1, 2024	0.96	0.72	0.76	5,235,344
September 1, 2024	1.27	0.70	1.15	4,118,961
October 1, 2024	1.16	0.93	1.05	3,102,025
November 1, 2024	1.05	0.73	0.83	3,275,905
December 1, 2024	1.13	0.77	0.81	4,977,813
January 1, 2025	1.05	0.70	0.71	3,260,352



February 1, 2025	0.83	0.67	0.70	2,058,036
March 1, 2025	0.73	0.56	0.65	1,748,912

# **Reporting Issuer**

Nano One is a reporting issuer or the equivalent in the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and Nova Scotia.

#### **Dividends**

No dividends on the Common Shares have been paid by the Company to date and the Company does not currently have an established policy with respect to the payment of dividends or any immediate plans to issue dividends at present.

# **Transfer Agent and Registrar**

The Company's transfer agent and registrar is Computershare Investor Services Inc. The register of transfers of the Company's Common Shares is maintained by Computershare at its offices located at 510 Burrard St, 3<sup>rd</sup> Floor, Vancouver, British Columbia V6C 3B9.

#### GENERAL DEVELOPMENT OF THE BUSINESS

### **Three Year History**

#### Fiscal Year 2022

### Financings and Government Funding

Funding to Advance M2CAM and Thermal Processing Initiatives

In March 2022, the Company announced funding from the NRC-IRAP (received) to advance cost optimization of the One-Pot process for the manufacture of cathode active material ("CAM"), specifically as it relates to use in metal feedstocks enabled by Nano One's M2CAM technology and innovations in the final stage of thermal processing.

SDTC and BC-ICE Funding of \$1.8M and Grant of 2 Patents

In August 2022, the Company announced the grant of two (2) additional patents in Japan and approximately \$1,800,000 (received) in non-dilutive, non-repayable contributions from SDTC and BC-ICE toward Milestone 4 (the final milestone) of the Scaling Advanced Battery Materials project, after completing Milestone 3 deliverables for economic modelling and scaled-up demonstration of both LFP and NMC.

# Partnership and Technological Breakthroughs

Successful Completion of Phase One of Co-Development Agreement with Niobium Producer CBMM



In February 2022, the Company announced that it had successfully completed Phase 1 of its advanced lithium-ion battery cathode materials coating development agreement with CBMM, demonstrating that CBMM's niobium can be used to form a coating simultaneously with cathode material using Nano One's patented One-Pot Process to enhance durability on the resulting NMC CAM. These are applicable to both conventional liquid electrolyte cells and advanced solid state electrolyte cells.

### Joint Development Agreement - BASF

In May 2022, Nano One announced the signing of a JDA with BASF SE ("BASF") to codevelop a process using Nano One's technology to reduce cost, by-products, energy consumption and environmental footprint for the potential production of BASF's proprietary CAM.

## Strategic Investment by Rio Tinto

In June 2022, the Company entered a strategic partnership with Rio Tinto including a collaboration agreement and a US\$10,000,000 (\$12,536,500) investment into Nano One with proceeds directed to technology and supply chain development, commercialization, the acquisition of JMBM Canada, its conversion to One-Pot process LFP, and for working capital purposes.

Nano One issued 4,643,148 Common Shares to Rio Tinto, approximately 4.9% of the issued and outstanding Common Shares at the time of the share issuance, at \$2.70 per share in a non-brokered private placement. Nano One also issued 1,000,000 share purchase warrants to Rio Tinto in respect of a Strategic Collaboration Agreement executed between the parties. Each Warrant entitled Rio Tinto to purchase one common share at an exercise price of \$4.00, until June 16, 2023 (expired unexercised).

Provisions of the investment agreement with Rio Tinto include participation rights in any future equity financings to maintain pro rata ownership interest for a period of five years to June 16, 2027; a lock up on securities dispositions; and a standstill for a period of 12 months, subject to certain exemptions.

# Validation of Manganese Metal in M2CAM Process

In September 2022, the Company announced the successful validation of Euro Manganese's high-purity electrolytic manganese metal samples as feedstock for Nano One's One-Pot and M2CAM cathode production technologies, meeting the need for sustainably sourced critical minerals and environmentally superior supply chains in the automotive battery market in Europe and North America.

#### Joint Development Agreement with Umicore

In December 2022, the Company announced a non-exclusive JDA with Umicore to codevelop Nano One's patented M2CAM One-Pot process technology with Umicore's proprietary process technology for the purposes of increasing throughput, reducing costs,



and reducing environmental impact in the production of high nickel NMC CAM for lithiumion batteries.

### Corporate Events

Acquisition of Johnson Matthey Battery Materials Ltd.

On November 1, 2022, the Company acquired of 100% of the shares of JMBM Canada, a Canadian entity located in Candiac, Québec, for cash consideration of approximately \$16,000,000 including working capital adjustments. The acquisition included the team in Candiac, a 2,400 tonne per annum capacity LFP production facility (the "Candiac Facility"), equipment, land, and other assets. The transaction was announced on May 25, 2022. Transaction costs of \$352,993 were also incurred for aggregate cash consideration of \$16,352,993.

Change in Executive Officers and Board and Directors

Effective November 1, 2022, Denis Geoffroy was appointed Chief Commercialization Officer (CCO).

Effective June 15, 2022, Lisa Skakun was appointed to the Nano One Board of Directors as an independent Director.

Effective August 2, 2022, Kelli Forster was appointed Senior Vice-President of People and Culture.

#### Fiscal Year 2023

During fiscal 2023, the Company made significant achievements after the first full year of ownership of the Candiac LFP production facility. The Company recommissioned the Candiac Facility to test and demonstrate the One-Pot process in commercial scale equipment to produce LFP. These activities have showcased the patented One-Pot process working at commercial scale, attracted investment partners, and have positioned Nano One to commercialize its cost competitive, environmentally superior CAM manufacturing technology to supply LFP cathode materials for the emerging market in LFP batteries via production, licensing and joint venture opportunities. 2023 achievements included:

- Awarded \$10M in grant funds from SDTC.
- Successfully completed evaluations with global OEM and expanded collaboration to include LFP.
- Laid out commercialization plans for LFP and other materials.
- Signed JDA with Our Next Energy ("ONE") to collaborate on the validation, qualification, and production of a North American supply of LFP CAM.
- Demonstrated, de-risked and fast-tracked tonne scale sampling of One-Pot LFP.



- Secured \$17M investment and collaboration with Sumitomo Metal Mining.
- Completed pre-feasibility study (FEL2) of 12,500 tpa LFP production line.
- Showcased LCA study with 50% fewer GHGs and 80% less water.
- Preliminary OEM evaluation of Nano One LFP successful, kicking off tonne-scale evaluations.

# New program funding from SDTC

On February 13, 2023, the Company announced an award of \$10,000,000 in non-dilutive, non-repayable contributions from SDTC to support the conversion of Nano One's Candiac Facility to the patented One-Pot process for industrial-scale pilot production of LFP and include financial support to advance Nano One's One-Pot and metal-direct-to-CAM (M2CAM) processes for the industrial scale pilot production of next-gen LFP, NMC and LNM cathode active materials.

To re-align the SDTC program with the Company's focus on LFP and commercialization as announced on August 22, 2024, Nano One and SDTC executed an amended agreement on November 6, 2024 (superseding the original agreement signed on February 13, 2023), that changed the scope of the project. This amendment helped reduce overall project costs to Nano One and as such, it also reduced the projected reimbursements from SDTC for these expenses to approximately \$6,700,000. See "Fiscal Year 2024" for further details.

Completion of Cathode Evaluation Project & Expansion of Collaboration with Automotive OEM

On February 21, 2023, the Company announced the successful evaluation and benchmarking of the One-Pot process, CAM, and techno-economic modelling, under a Cathode Evaluation Agreement with a global automotive manufacturer (OEM). Success led the parties to a new Cathode Evaluation Agreement that added LFP to the program and expanded the collaboration to target performance, cost, and environmental specifications of CAM to meet the needs of the OEM. The parties jointly evaluated Nano One's NMC CAM for use in automotive lithium-ion batteries and demonstrated significant potential to reduce environmental footprint, capital costs and operating costs while meeting performance criteria.

The successful outcome of this initial evaluation project has led to Nano One and the OEM entering a new phase of collaboration and a second Cathode Evaluation Agreement.

New Patents Issued and Exercises of Expiring Warrants

On March 17, 2023, the Company announced three (3) additional patents issued. Patent Application TW 202222679 will be for the One-Pot synthesis of lithium iron phosphate (LFP) being commercialized in Candiac QC. Patent KR 10-2443307 is for the One-Pot



synthesis process of NMC and LNMO cathode materials. Patent US 11,616,230 will be for fine and ultrafine powders and nanopowders of lithium metal oxides for battery applications.

The Company also announced the receipt of approximately \$3,700,000 in proceeds from the exercise of warrants from January 1, 2023, in relation to warrants issued as part of a private placement completed in February 2020 and were due to expire on February 21, 2023.

Successful Completion of Phase Two of Co-Development Agreement with CBMM

On May 17, 2023, the Company announced the successful completion of phase two of the co-development work with CBMM demonstrating enhanced durability of high nickel NMC CAM when coated with CBMM's niobium using Nano One's One-Pot process and M2CAM technology.

Joint Development Agreement (JDA) with Our Next Energy (ONE)

On June 14, 2023, the Company announced a JDA with ONE to collaborate on the validation, qualification, and production of LFP CAM produced at Nano One's 200 tpa LFP pilot plant for validation in ONE's production LFP cells used in its Aries and Gemini batteries, with the goal of a binding offtake agreement and expansion into future production facilities.

#### New Patents Issued

On July 20, 2023, the Company announced the recent issuance of six (6) new patents that are approved for issuance, or have issued, in Canada, United States and Japan. In large part to ongoing support from Government of Canada programs.

### Completion of Second SDTC Project

On August 21, 2023, the Company announced successful completion of its second SDTC project which resulted in a final contribution by SDTC to the Company of approximately \$803,000 for total contributions over the course of the project from 2019 of \$8,250,000.

The funded project helped Nano One accelerate significant advances in scaling of its One-Pot process for LFP, specifically in preparation for pilot and industrial scale production at its Candiac Facility. The project enabled 10 kg batches of One-Pot LFP and greater for third party evaluation that have since led to trials in the Company's Candiac Facility that are exceeding 1,000 kg (1 tonne).

### LFP from Commercial Size Reactors and Customer Samples Delivered

On September 14, 2023, the Company announced that recent One-Pot trials in the existing reactors at the Candiac Facility had produced LFP at commercial scale, with performance results consistent to lab scale.



This achievement demonstrates and de-risks the full-scale capability of its process technology. This rapid advancement allows commercial scale LFP samples to be sent to qualified customers, for thorough evaluation and validation, and for the purposes of entering potential binding offtake agreements.

In parallel, Nano One commissioned a One-Pot 200 tpa LFP pilot line for a baseline automated production capacity of 200 tpa.

# Collaboration Agreement with Sumitomo Metal Mining

On October 5, 2023 (as announced on September 25, 2023), Nano One and Sumitomo Metal Mining Co., Ltd. ("SMM", together with Nano One, the "Companies") closed a transaction whereby the Companies agreed to a strategic equity investment in Nano One by SMM of approximately \$17,000,000 and entered into a Collaboration Agreement under which the Companies will work together to accelerate the commercial production of LFP, CAM and nickel-rich CAM chemistries, such as NMC. SMM is a leading vertically integrated miner, refiner, and producer of CAM. Nano One has used the proceeds on its One-Pot 200 tpa LFP pilot line, piloting activities, and general working capital.

SMM and Nano One also entered into a Collaboration Agreement that encompasses various aspects primarily centred on supporting the development of battery ecosystems, with a particular focus on LFP and NMC production using the One-Pot process. The collaboration will support technical product optimization for both LFP and NMC, as well as efforts to mitigate supply chain risks.

Further, the Companies are jointly exploring business development opportunities, including future sales and technology licensing. The Companies intend to exchange relevant market information and technical expertise to improve the quality and cost of CAM produced by the One-Pot process at our facilities to meet SMM customer requirement. SMM is the first CAM producing investor in Nano One.

Nano One and SMM also entered into an Investor Rights Agreement, providing SMM with participation rights in any future equity financings to maintain pro rata ownership interest for a period of up to three years to October 5, 2026. Under the agreement, SMM will agree to a standstill provision that, among other things, restricts SMM's ability to purchase additional shares without Nano One's consent for a period of 24 months and restricts SMM's ability to sell the Shares for 12 months, subject to certain exemptions.

# Completion of FEL2 (pre-feasibility) Study

On October 23, 2023, the Company announced the completion of a FEL2 pre-feasibility study which estimates that the optimal capacity for a One-Pot LFP production line is 12,500 tpa.



# Life Cycle Assessment (LCA)

On December 6, 2023, the Company announced the results of a third-party LCA report which showed that its One-Pot process could cut GHG emissions by up to 60% for NMC811 CAM, and up to 50% for LFP CAM, and significantly reduce water use for both CAMs when benchmarked against the complexity and energy intensity of conventional CAM processes operating in various jurisdictions. These environmental improvements are augmented by the other benefits of the One-Pot Process including reduced cost, complexity and dependency on foreign supply chains of concern.

Preliminary evaluation by Automotive OEM of Nano One LFP is successful and Kicks Off Tonne-Scale Evaluations

Key collaborators from the automotive, ESS, defence, and industrial sectors are testing and validating Nano One LFP for the purposes of securing offtake agreements.

Change in Executive Officers

Effective April 3, 2023, Adam Johnson was appointed Senior Vice-President of External Affairs.

#### Fiscal Year 2024

Change in Executive Officers

Effective January 15, 2024, Carlo Valente was appointed CFO, replacing Dan Martino who remains with the Company as Vice President of Finance.

Effective January 15, 2024, Leanne Likness Swanson was appointed Corporate Secretary, replacing Pamela Kinsman who remains with the Company as Director of Sustainability.

Nano One Adds Four (4) More Lithium Battery Manufacturing Patents in Asia

On February 21, 2024, the Company announced that it had added 4 more Lithium Battery Manufacturing Patents in Asia, bringing the intellectual property portfolio to 40. The 4 patents included:

- Japan: Formation of lithium metal oxide cathodes from elemental metal.
- Taiwan: Battery enhancement using simplified electrolyte & One-Pot cathode.
- China & Korea: Simultaneous formation of coating and cathode in single step.



### Feasibility Study (FEL3)

On February 27, 2024, the Company announced the commencement of a feasibility study (FEL3) for a 25,000 tpa LFP commercial plant to support securing customer offtake, feedstock supply, and future project funding. The plant design will form the basis of Nano One's turn-key "Design One, Build Many" strategy to address the broader LFP market. The FEL3 study will provide an optimal production line layout and maximum utility of key equipment. Progress at Nano One's pilot line has helped de-risk, improve, and optimize the One-Pot process for LFP in commercial scale equipment while informing engineering plans and providing confidence to collaborators on the long-term competitive viability of Nano One's CAM production technology.

### License and Alliance Agreement with Worley Chemetics®

On May 1, 2024, Nano One executed a Strategic Alliance Agreement and License Agreement with Worley Chemetics (a wholly owned Canadian subsidiary of Worley Limited, a global engineering leader in sustainability solutions). Under the Strategic Alliance Agreement, Nano One and Worley Chemetics will jointly develop, market, and license a process engineering design package for the development of CAM production facilities with potential customers in the lithium-ion battery materials sector.

The parties are working towards jointly developing a holistic technology CAM package that incorporates Nano One's proprietary One-Pot process into a modular process engineering design package with intellectual property rights, flow sheets, detailed engineering, the operational know-how of both parties and applicable proprietary equipment (see December 4, 2024 update below). Worley Chemetics will also design and fabricate One-Pot reactors made with customized metal alloys. The License Agreement oversees the sale of CAM packages, including necessary cross-licensing of intellectual property, license fees and remuneration to both parties over a term of up to 20 years. The collaboration with Worley Chemetics is expected to generate revenues through upfront fees, equipment sales, and technology licensing fees from production.

On June 20, 2024, the Company issued a news release with a video link to a detailed discussion on the strategic partnership, technology, plans, and potential for the future of sustainable battery materials production. The full fireside chat featuring Dan Blondal, CEO and Founder of Nano One, and Laura Leonard, Group President, Technology Solutions at Worley Chemetics is available here: <a href="https://nanoone.ca/news/video-update-worley/">https://nanoone.ca/news/video-update-worley/</a>. via a video link within the news release.

# Update on Alliance with Worley Chemetics

On December 4, 2024, the Company provided a progress update on its Worley Chemetics – Nano One Strategic Alliance ("Alliance"), including a jointly conducted cost comparison confirming the economic advantages of Nano One's One-Pot process for LFP. In addition, the preliminary design and full-scale layout of the modular "Design One, Build Many" plant is complete and being marketed with the cost comparison study to prospective clients.



The comparative analysis showed that the One-Pot process could enable at least 30% lower costs in total invested capital and up to 30% lower operational costs, using up to 80% less energy than the incumbent method. The One-Pot process also eliminates sodium sulfate wastewater and could use up to 80% less process water and reduce GHG emissions by up to 50% depending on energy sources and jurisdiction.

The Strategic Alliance has also completed a layout of the modular plant with operability and maintainability in mind and is accelerating engineering and qualification of vendor equipment to complete the LFP CAM Technology Package and support customer ambitions in this market.

The analysis estimated and compared the cost of two 25,000 tpa North American CAM production facilities that convert iron, phosphate and lithium sources into LFP, one enabled with One-Pot technology from Nano One, and the other using incumbent high-volume production technology from China. The operating and capital cost estimates of the incumbent technology were done to a Class 5 level in accordance with the Association for the Advancement of Cost Engineering (AACE) and included the treatment of sodium sulfate wastewater in North America. Comparisons were made with Nano One's One-Pot process from a previously completed FEL-2 pre-feasibility study and the partially advanced FEL-3 feasibility study. Nano One and Worley are confident with the cost estimates which are based on equipment quotes from various major vendors, installation factors, indirect costs, and best practices in engineering, procurement and construction management (EPCM).

NGen awards Nano One and Worley Chemetics \$2,800,000

On August 13, 2024, Nano One and Worley Chemetics announced the award (effective July 16, 2024) of approximately \$2,072,000 and \$888,000, respectively in non-dilutive and non-repayable funding by Next Generation Manufacturing Canada (NGen) through its Electric Vehicle Manufacturing Program (EVMP). The funding stream is through to March 31, 2028, and aids in the development of the Canadian Electric Vehicle supply chain and manufacturing ecosystem. NGen is an industry-led, non-profit organization that supports development of world-leading advanced manufacturing capabilities in Canada. The funding will advance a new project to help both companies develop, market, and sell CAM facility packages that incorporate Nano One's proprietary One-Pot process into a process engineering design package.

Drawing on its specialized capabilities, experience and knowledgeable team, Worley Chemetics will support Nano One in identifying the best materials of construction, and fabrication methods for key equipment required for the One-Pot process, and in engineering and delivering the technology and its associated equipment. The project's goal is to integrate both companies' advanced process and equipment knowledge into the CAM manufacturing ecosystem, enabling the joint marketing and sale of equipment in Canada and around the world. Design specifications will be determined through rigorous reactor studies, analysis and selection of appropriate materials of construction, ensuring compatibility with feedstocks and reagents, as well as operating conditions.



The Company received a payment of \$378,092 from NGen in March 2025.

Nano One Streamlines Operations to Enhance Focus on LFP and Commercialization

On August 22, 2024, Nano announced, as part of its broader strategic plan, the Company streamlined operational and corporate costs, with a workforce reduction of approximately 20%.

Nano One sells vacant land for gross proceeds of \$5,000,000

On September 12, 2024, further to a definitive agreement signed in August 2024, Nano One closed on the sale of a vacant lot on its land in Candiac, Québec for gross proceeds of \$5,000,000 (\$4,834,550, net after closing costs).

The sale by Nano One provides non-dilutive funds to its treasury without compromising its growth strategy, while leveraging access to alternative sites with better utility infrastructure, improved constructability and room to expand well beyond 25,000 tpa of LFP capacity.

Department of Defense (DoD) of the United States of America awards US\$12,900,000 to Nano One

On September 26, 2024, Nano One announced the funding award from the DoD (Canadian equivalent at the time of announcement of approximately \$17,800,000) through the Defense Production Act Investments (DPAI) office's Title III program. The project will support work underway at the Company's facilities in Burnaby, British Columbia, and the Candiac Facility, and is effective for the period from July 1, 2024 through 2027. The funds will expand capacity at the Candiac Facility, which is North America's only LFP production facility. The award is broadly focused on improving energy security by accelerating the formation of a resilient industrial base and LFP battery supply chain in the United States and Canada. The project also addresses the energy security requirements of the defense sector by supporting product validation and potential sales with customers that include, as previously disclosed, suppliers to the US government.

The Company received its first payment of \$1,223,281 (US\$849,501) from the DoD in March 2025.

Nano One Announces Resignation of Paul Matysek and Appointment of Industry Veteran Anthony Tse as New Chair of the Board of Directors

On October 1, 2024, the Company announced that Mr. Anthony Tse had been appointed Chair of the Board of Directors to succeed Paul Matysek, the founding Chair of Nano who resigned as part of a planned transition to an advisory role to support the incoming Chair and Board.



Government of Québec awards \$18,000,000 to Nano One (Investissement Québec and Technoclimat)

On December 11, 2024, the Company (through its subsidiary Nano One Materials Candiac Inc. ("Nano Candiac")) executed an interest-free loan agreement (the "Loan") with Investissement Quebec ("IQ") through which funding of up to a maximum of \$15,000,000 can be received based on the terms and conditions of the Loan. Concurrently, Nano Candiac was awarded a grant of up to \$3,000,000 from the Government of Quebec's Ministry of the Environment, the Fight against Climate Change, Wildlife and Parks (MELCCFP), through its Technoclimat program (the "Grant"). The Grant is structured as a reimbursement for eligible expenditures incurred at the Candiac plant, subject to compliance with the terms and conditions of the agreement. Funds received through the Grant will support the Company's transition toward cleaner and more efficient manufacturing processes.

The \$15,000,000 Loan directly supports approximately \$63,400,000 of eligible expenditures between January 1, 2023, through December 31, 2026, at the Candiac Facility. The \$3,000,000 Grant also reimburses expenses incurred at the Candiac Facility and is directed towards a transition to cleaner and more efficient manufacturing. Nano One has submitted a claim for \$31,713,073 in eligible expenditures that have been incurred to December 31, 2024. The Loan repayment period begins 60 months after the first disbursement and will be repaid over a subsequent 60-month period.

The \$3,000,000 Grant also reimburses expenses incurred at the Candiac Facility and is directed towards a transition to cleaner and more efficient manufacturing. The funds apply to some of the expenses incurred during the construction and operation of the Company's pilot line that was successfully commissioned in Q4 2023, and for capacity expansion planned at the facility in 2025 and 2026.

The Company received \$2,200,000 from the Technoclimat Grant in February 2025, and \$7,503,313 for reimbursement claims from IQ in March 2025.

NRC IRAP Novated Project Funding Agreement (formerly, SDTC Project Funding Agreement)

On June 4, 2024, the Government of Canada announced that Sustainable Development Technology Canada ("SDTC") programming will transition from SDTC to the National Research Council of Canada IRAP (the "NRC"), and assignment of the February 2023 funding agreement (see below) and any and all amendments thereto was completed in February 2025.

<u>SDTC First Amendment to Project Funding Agreement:</u> Under its February 2023 (see "Fiscal Year 2023") agreement with SDTC, Nano One was to be reimbursed for up to \$10,000,000 in eligible project expenses to support the conversion of the Candiac Facility to the One-Pot process for industrial-scale production of LFP. The SDTC project was to



also include financial reimbursement for expenses incurred in the design, construction, and operation of a multi-cathode hub (MCPH) at the Candiac Facility.

To re-align the SDTC program with the Company's focus on LFP and commercialization as announced on August 22, 2024, Nano One and SDTC executed an amended agreement on November 6, 2024, that changed the scope of the project to exclude the MCPH component of the program and include certain feasibility and engineering expenses (FEL3) related to the Development Project. This amendment helped reduce overall project costs to Nano One and as such, it also reduced the projected reimbursements from SDTC for these expenses to approximately \$6,700,000. The amended agreement signed on November 6, 2024, supersedes the original agreement signed on February 13, 2023.

Of the total available funding of \$6,735,987, Nano One has received \$4,738,398 through to the date of this AIF, of which \$1,453,891 as the advance Milestone 2 payment, was received in January 2025.

Nano One Secures Its 11th New Patent in 2024

On December 18, 2024, the Company announced the allowance and/or issuance of 7 new patents to its portfolio, bringing its 2024 total to 11, and its historical total to 48 with more than 56 further patent applications pending, in jurisdictions around the world.

# **Subsequent Events**

### Proceeds from government programs

The Company received funding from certain government grant and loan programs totalling \$12,758,577 subsequent to December 31, 2024 between NRC (SDTC), DoD, Technoclimat, IQ, and NGen.

#### Sale and leaseback transaction

On February 28, 2025, the Company closed a transaction to sell and leaseback its Candiac building and surrounding property at 280 Liberté Avenue, Candiac, Québec ("Property"), which is the location of the Company's Candiac Facility, to Candiac Industrial Properties (I) L.P. ("Purchaser") for net proceeds after a lease security deposit and transaction costs of approximately \$13,700,000 (plus a \$2,000,000 deferred payment via vendor loan). This transaction significantly strengthens the Company's cash balance while ensuring long-term operational stability in the province of Québec through a 15-year lease agreement with renewal provisions for up to an additional 15 years.

The vendor loan of \$2,000,000 is a deferred payment and is secured by an immovable hypothec, safeguarding Nano One's interests and bears interest at 4% per annum. The vendor loan is due \$1,000,000 plus interest in February 2028, and \$1,000,000 plus interest in February 2031. In addition to the proceeds and pursuant to a capital investment agreement, a separate \$3,000,000 reserve will be funded by the Purchaser and held in



escrow to fund potential capital improvements, should the Purchaser deem them necessary.

Additionally, Nano One entered into a lease agreement for the Property for an initial term of 15 years, with three optional 5-year renewal periods. In addition, the Company has the right of first offer should the Purchaser decide to sell in the future. This arrangement provides long-term stability for the Candiac operations.

#### Commercialization Plans

Timing, scope and spend on the below initiatives are discretionary and flexible, enabling Nano One to adjust and align its strategy with the evolving battery market landscape and timelines. Given uncertainties in the capital markets, the Company is also evaluating options to conserve capital while focusing on product evaluation, first sales, offtake from the Candiac Facility, licensing opportunities and government funding. The goal is to launch LFP in North America with a globally diversified customer base, followed by Europe and the Indo-Pacific region.

Nano One continues to execute on its plans and bring value to its shareholders by advancing its commercial scale production capabilities in Candiac, by enhancing its pipeline of potential customers and licensees, by furthering its product and technoeconomic evaluations and by developing increasingly compelling business opportunities.

# Demo Plant - 200 tpa capacity

Nano One acquired the Candiac Facility in Q4 2022 and repurposed it to demonstrate its One-Pot process at a commercially valid scale. The waste handling systems were no longer needed and subsequently decommissioned, and the Company completed the commissioning of new 200 tpa One-Pot reactors in Q4 2023. The pilot line is now being used to facilitate demonstration, technology validation, sampling and evaluation while also informing FEL design studies and the LFP CAM Technology Package with Worley Chemetics (see "Key Business Developments" above). There are plans to further expand the capacity of the existing Candiac Facility (see "Expansion" below), as demand for LFP takes hold, leveraging existing full-scale equipment and facility capacity with further automation (see discussion below).

## Expansion – minimum 1,000 tpa capacity

The Candiac Facility remains the launch pad for Nano One's growth strategy and a clear path to first revenue and larger offtakes. The Candiac Facility is equipped with commercial scale equipment that enable Nano One to demonstrate its technology and to complete the customer material validation process that requires production scale batches for up to C sampling for OEM customers. The Candiac Facility will support small scale offtakes and production for first revenues and large-scale offtakes for technology licensees, including the potential 25,000 tpa Development Project (see below) and the technology licensing business in alliance with Worley Chemetics.



A Front End Engineering and Design (FEED) study is planned for completion in Q2 2025 which will result in pre-feasibility level costing and nameplate capacity estimation for the expansion. Together with the results of the study, the Company will make a final investment decision in Q2 2025.

Existing capacity and future expansion, together with Nano One LFP know-how, plays a strategic and critically valuable role in driving potential revenues via small customer sales, validation, and qualification support with its licensee opportunities.

Commercial Plant (Development Project) - 25,000 tpa capacity

The Company's FEL2 pre-feasibility study, as reported in October 2023, modelled a 25,000 tpa LFP plant on the unused portion of its land in Candiac, Québec (which land was sold in September 2024) and importantly identified the optimal single production line size at 12,500 tpa of LFP. In February 2024, a FEL3 feasibility study was launched with consideration being given to lower-cost alternative sites that would better accommodate growth, utility requirements and future market needs. The Company reported that its FEL3 study to date is showing lower capital costs and operating expenses than its earlier FEL2 study. This further enhances the One-Pot value proposition and supports the Strategic Alliance with Worley Chemetics. Currently, the Company is focused on advancing the high priority aspects of the FEL3 study, with Worley, that are site agnostic and will support its licensing strategy.

For the abovementioned FEL3 study, \$1,890,000 had been paid through to December 31, 2024 (all during 2024), in relation to the 25,000 tpa Development Project.

Nano One continues to consider its Development Project and various paths forward as part of its licensing strategy into a joint venture and would include the project becoming a separate stand-alone operating company. As such, Nano One would significantly reduce its capital needs and could earn a license fee for the use of its One-Pot process technology. This would be in addition to a development fee for its efforts on the 25,000 tpa Development Project which could be settled by either an equity interest in the operating company, cash, or a combination thereof. Nano One believes that this approach offers its partners and stakeholders significant value through licensing, technology, knowhow, customer engagements and project finance solutions while minimizing equity dilution. The FEL3 study will also support the "Design One, Build Many" growth strategy to develop, market, license and deploy CAM packages globally in partnership with Worley Chemetics. The Development Project leverages Nano One's existing Candiac Facility together with target customer engagements and project finance initiatives. A financial decision to apply significant resources to the Development Project will require further progress on agreements for customer offtake, feedstock supply, and government support, as well as final site selection. With regards to site selection for the Development Project, Nano One is in dialogue with governments, their agencies and third-party strategic interests with regards to incentive programs and the evolving market needs in North America and Europe. Key considerations include automotive OEM timing, their LFP battery manufacturing and procurement strategies, government tariffs and production tax



incentives, government incentives in the form of grants and forgivable loans, municipal collaboration, and access to low-cost land, sufficient utilities (power, water, natural gas), footprint for expansion to align with longer-term objectives and location prefrences from collaborating stakeholders.

# **Significant Acquisitions**

The Company has not completed any acquisitions during its most recently completed fiscal year for which disclosure is required under part 8 of NI 51-102.

### **DESCRIPTION OF THE BUSINESS**

# **Corporate Summary**

Nano One is a process technology company specializing in lithium-ion battery cathode active materials. Its One-Pot technology combines pCAM and CAM processes to reduce capital and operating expenditures, energy intensity and water use while also eliminating all wastewater, sulfate by-product and reliance on foreign supply chains of concern. The Company has shifted its focus predominantly towards the commercialization of its One-Pot LFP and is actively collaborating on this with OEMs and globally strategic industry supply chain partners such as Sumitomo Metal Mining ("SMM"), Rio Tinto and Worley Chemetics (a wholly owned Canadian subsidiary of Worley Limited, a global engineering leader in sustainability solutions).

Nano One's technology is applicable to lithium-ion battery cathode materials used in EV, ESS and AI data center, and consumer electronic batteries, reducing costs and carbon intensity with easier-to-permit modular plants that can leverage resilient and secure sources of critical minerals in emerging markets such as North America, Europe, and the Indo-Pacific region. The Company has a commercially experienced production team and facility in Candiac, Québec ("Candiac Facility") that serves as a platform to (a) pilot and demonstrate commercial scale production, (b) sample product for the purposes of evaluation and future sales, and (c) optimize and launch the marketing and licensing of its CAM production facility packages. Nano One aims to create shareholder value by diversifying future revenue streams that include production plant licensing fees, equipment procurement and sales from its Candiac Facility. Nano One is focussing on LFP to leverage a global shift towards this battery chemistry and is investing in the capacity expansion of its demonstration plant and its engineering plans for licensing, while streamlining its operations for first commercial revenues. As such, its initiatives on other CAM chemistry formulations, such as NMC and LNMO, have slowed and focussed on fundamental process technology development initiatives with its strategic partners, or been put on hold until market conditions allow for further investment.

Nano One began operating a 200 tpa One-Pot<sup>TM</sup> LFP pilot line ("pilot line") at its Candiac Facility in Q4 2023 and have also successfully de-risked the production of LFP with performance results consistent to lab scale. This advancement enabled commercial scale LFP samples to be sent to qualified customers starting in Q1 2024 for the purposes of



evaluation, validation and entering into potential binding offtake agreements. As the market has evolved, so have LFP product specifications and as such, Nano One continues to work with its potential customers in a collaborative feedback loop to improve and qualify its LFP materials, initially for sale in the battery energy storage (BESS), defense and heavy-duty industrial sectors, followed by licensing opportunities in the larger market sectors for AI data centers and mass market EVs.

Nano One has also de-risked production and quality in larger full-scale reactors at its Candiac Facility and is now investing in the automation and integration of these reactors with its full-scale dryers and kiln, to expand capacity and demonstrate commercial production and sales at 1,000 tpa or greater. The Company is also advancing the high priority aspects of an FEL3 study to be site agnostic and support its licensing, joint venture, and independent production initiatives (see "Commercialization Updates" below).

Nano One remains steadfast in its licensing strategy, together with its alliance partner Worley Chemetics, and a "Design One, Build Many" growth strategy that is cost competitive, capital light, and globally significant. Nano One's LFP know-how, demonstration plant and scale-up expertise in Candiac are key differentiators that stand it apart from the competition. Further, the Company has a continuous improvement approach that will benefit its licensees with valuable process innovations and next gen product that are cost competitive, differentiated, IP protected and supported with production know-how and training.

### One-Pot Process and M2CAM® Technologies

Nano One's patented technology is engineered to make cathode materials directly from non-sulfate forms of battery metals and aims to reduce cost, waste, logistics, energy intensity, carbon footprint and trade uncertainty in the lithium-ion battery supply chain.

The benefits of the One-Pot process and M2CAM technology are mainly attributable to the elimination of the iron and phosphate precursor steps (pCAM) by integrating them with the lithium addition step (CAM), high efficiency thermal processing, and the elimination of sodium sulfate wastewater. This has the additional benefit of making One-Pot enabled CAM production facilities easier to site, permit, construct, and operate while decoupling from foreign supply chains of concern. Furthermore, the process uses lithium feedstock in the form of carbonate rather than hydroxide (even in the case of high-nickel CAM) to further reduce cost, handling, logistics and safety issues.

The Company develops process technology and products using a system of New Product Introduction ("NPI") that requires technology to follow 6 stages including (1) idea, (2) evaluate, (3) develop, (4) scale-up, (5) launch, and (6) close-out. Stages (1) - (3) are



carried out at the Company's Innovation Center in Burnaby, BC, and stages (4) - (6) at the Company's Commercialization Center in Candiac, QC.

The Company's LFP process is at (4) scale-up stage, its NMC process is at (3) develop stage, and there are several projects related to recycling and thermal processing that are at (1) idea and (2) evaluation stage. Timing, as it relates to commercial production, varies greatly from project to project, partner to partner, and market maturity, however the Company's One-Pot LFP process and Products are closest to commercialization, as described below. The Company is currently evaluating its product with potential offtake customers and developing the engineering feasibility plans needed for the construction of larger plants. The Company is seeking financial support and sales commitments from target customers who are looking to secure LFP cathode active materials from its existing demonstration facility and from the larger yet-to-be-built facilities, for applications in stationary ESS and AI data centers, defense and mass market EVs. and defense sectors.

#### **Addressable Markets**

#### Market Conditions

Throughout the second half of 2023 and through 2024, many ambitious targets for EV, battery and critical minerals production have been scaled-back. This despite over 3 million EVs sold in the first quarter of 2024, which represents an increase of over 25%<sup>1</sup> over the same period in 2023, marking demand for batteries and cathode materials that continues to grow, year over year, with a decisive shift towards LFP technology, LFP offers significant advantages in terms of cost, safety, security of supply, and environmental impact compared to traditional NMC cathode materials and is suited to mass market, heavy-duty applications in stationary ESS and AI data centers, and EVs.

The Government of Canada has recognized the emerging importance of the LFP supply chain by placing lithium, phosphorous and high-purity iron on the Critical Minerals list.<sup>2</sup>

The global market for battery demand experienced robust growth in 2024, supported by increases in both EV segment and the ESS sectors. According to Rho Motion, 2024 global EV sales reported strong year-over-year growth - with a 25% increase totaling 17.1-million-unit sales. Regional sales were led by China, which reported 40% growth, followed by Rest of the World markets with a 27% increase - growth in the North American market slowed to a 9% increase, while the UK/European markets contracted by 3% for the year.

Global ESS installations also reported strong growth for the year, with a 53% year-over-year increase, representing a total of 205GWh installed capacity worldwide. China led regional growth, commanding a share over 67% of all ESS deployments globally, followed by North America as the next largest market. By category, grid applications represent

<sup>&</sup>lt;sup>1</sup> https://www.iea.org/energy-system/transport/electric-vehicles

 $<sup>^2\,</sup>https://www.canada.ca/en/natural-resources-canada/news/2024/06/government-of-canada-releases-updated-critical-minerals-list.html$ 



over 78% of global deployment and importantly, of those ESS deployed, over 98% were based on lithium-ion battery technologies.

The global demand for LFP cathode materials continues to surge, driven by growing adoption in EVs, ESS, and AI data centers. China, which dominates approximately 95% of global LFP production capacity (International Energy Agency, IEA, Global EV Outlook 2024), recently proposed export restrictions which cover processing technology and operational know-how used in the production of LFP cathode material, precursors, and raw material inputs. China's LFP technology export restrictions follow US 2024 elections and are aimed at slowing efforts to onshore mineral production, cathode processing and improve competitiveness. This demonstrates the strategic importance of LFP and the importance of localizing materials processing to ensure energy security, especially as North America and Europe enter a phase of unprecedented growth in the demand for energy for EV, ESS and AI data centers. According to Rho Motion, the USA and EU have emerged as the second fastest-growing markets for ESS, supported by expanding grid infrastructure.

# Business Environment and Opportunities

Nano One's patented One-Pot process innovations could drive down cost, energy intensity and environmental permitting challenges at an industrial scale to enable secure sources of raw material inputs, and accelerate the adoption of LFP for stationary ESS, Al data center and EV applications in North America and other jurisdictions. The One-Pot process positions Nano One favorably, with an easier-permit and competitively differentiated production process, to meet the emerging demand for LFP in North America, Europe and the Indo-Pacific region. NMC remains important for applications in long range, energy dense batteries and Nano One will keep modest efforts on its One-Pot process NMC program to support collaborators and stakeholders in developing sustainable process solutions for the future.

In response to various macroeconomic and market factors, Nano One announced the streamlining of its operations on August 22, 2024, including a workforce reduction of approximately 20%, as part of its broader strategic plan to prioritize third party product validation for near term production and sales of LFP at its Candiac Facility, and longer-term revenue growth through licensing, joint venture and project development.

Nano One has long anticipated the challenges discussed above and is uniquely positioned to meet demand, with its One-Pot enabled LFP cathode production facilities, designed for easy permitting, modular deployment, and rapid adoption. The Company's technology is homegrown, and its team has 20 years of experience making LFP. Nano One is serving a global market by enabling flexible feedstocks and cost-competitive production for waste-free and easy-to-permit plants that transcend trade restrictions and borders. With a diverse set of emerging clients that serve Europe, the Indo-Pacific, and the United States, Nano One can elect where it sells its LFP and licenses its technology, enabling the Company to navigate emerging markets, and trade uncertainty with agility. This flexibility is bolstered by strong government support, world-class strategic partners,



and clearly defined near-, mid-, and long-term revenue pathways through production and licensing.

# **Process Developments**

# One-Pot Process Technology

Nano One's patented technology is engineered to make cathode materials directly from non-sulfate forms of battery metals and aims to reduce cost, waste, logistics, energy intensity, carbon footprint and trade uncertainty in the lithium-ion battery supply chain.

The One-Pot technology is an aqueous process, using carbon neutral chemistry, that operates at room-temperature and atmospheric pressures where reactants first nucleate to form an intermediate salt that readily fires in high efficiency kilns to form coated nanocrystal cathode powders. Its benefits for LFP mainly attribute to the elimination of the iron and phosphate precursor steps (pCAM) by integrating them with the lithium addition step (CAM), high efficiency thermal processing, and the elimination of sodium sulfate wastewater. This has the additional benefit of making One-Pot enabled CAM production facilities easier to site, permit, construct, and operate while decoupling from foreign supply chains of concern. Furthermore, the process uses lithium feedstock in the form of carbonate rather than hydroxide (even in the case of high-nickel CAM) to further reduce cost, handling, logistics and safety issues.

# Coated Nanocrystal Technology

The coated nanocrystal innovation addresses a fundamental battery trade-off between energy density and durability. Increased durability would provide EV manufacturers greater flexibility in optimizing range, charging rates, safety, and cost. The One-Pot process combines all input components: lithium, metals, additives, and coatings in a single reaction to produce a precursor that, when dried and fired, forms quickly into a single crystal cathode material simultaneously with its protective coating.

Furthermore, by increasing the ratio of nickel to cobalt in cathode materials, cobalt supply chain risks can be reduced; however, the shift to nickel-rich materials compromises cycle life and safety in the battery. Coated monocrystalline cathode powders can address these problems and the Company's coated nanocrystals provide similar improvements to durability as evidenced through the Company's published results and portfolio of intellectual property.

The coated nanocrystal technology applies to all the cathode materials and compositions under development by the Company, including:

- **(LFP):** Lithium Iron Phosphate;
- (LNMO or HVS): Lithium Nickel Manganese Oxide, also referred to as "High Voltage Spinel"; and
- (NMC622, NMC811, and Ni>90% NMC): Lithium nickel manganese cobalt oxide.



### M2CAM® Technology

Nano One's M2CAM technology aims to reduce cost, waste, logistics and the carbon footprint in the lithium-ion battery supply chain.

Nano One's patented One-Pot process forms durable single crystal cathode powders and protective coatings simultaneously and the process has been adapted for M2CAM, enabling these materials to be made directly from nickel, manganese and cobalt metallic powder feedstocks rather than metal sulfates or other salt powders. Metal powders are at least one-fifth of the weight of metal sulfates, avoiding the added costs, energy and environmental impact of sulfation, water treatment, discharge, and byproduct processing plants. The Company is also actively working with iron metal powder producers such as Rio Tinto to enable LFP production using iron metal powders produced at its iron metal powder refinery in Québec. Work to date is encouraging and could unlock a significant supply of Québec produced battery metal for the growing LFP CAM market.

Nano One's technology also offers the flexibility to use either lithium carbonate or hydroxide as feedstocks. This is enabled by reacting lithium with reagents and other metal inputs in Nano One's patented One-Pot process to produce a lithiated mixed-metal intermediate salt that is neither carbonate nor hydroxide, allowing it to react and form finished cathode powder more rapidly than conventional methods when thermally processed in a furnace.

In contrast, conventional cathodes are made by first converting metals into metal sulfates and lithium into lithium hydroxide. The metal sulfates are then mixed in a chemical reaction to produce a mixed metal nickel manganese cobalt precursor powder ("**PCAM**"), with the sulfate and water going to waste. This PCAM is then milled with lithium hydroxide powders prior to a prolonged firing that forms dense clusters of crystalline particles (polycrystalline). Protective coatings can then be formed by adding additional materials and firing again. However, crystals, within each grain of powder, contract and break apart from repeated charging, and this fractures the protective coatings and leaves individual crystals within the grains of powder exposed to side reactions. Extra time in the kiln can alleviate some of these issues, but also damages the crystal structures and adds cost.

Nano One's technology aligns it with the sustainability, supply chain and energy security objectives of critical mineral, battery and automotive companies, and governments.

# **Product Development**

The Company conducts its own research and development, and its technologies and materials are currently in a pre-commercial stage.

<u>LFP</u>: LFP is the safest, longest lasting, and lowest cost cathode material for lithium-ion batteries and the latest generation of LFP battery packs compete effectively with NMC on energy density and EV range. The aggregate of these benefits has propelled LFP adoption in China to 70-80% market share for applications in (ESS), mass-market and heavy-duty EVs, and lead-acid replacement.



The Company's LFP process reduces the number of process steps and eliminates wastewater and by-products, while also reducing cost, energy intensity, GHG emissions and water usage. Furthermore, it enables iron metal powder as direct input, simplifying supply and eliminating reliance on iron sulfate from foreign supply chains of concern.

- The LFP process and product is being validated at commercial scale with potential customers and licensees. The Company is also advancing its engineering work to address commercial interest for full-scale production of LFP.
- The Company commissioned a 200 tpa LFP pilot line in Q3 2023 and began commercial trials and customer sampling thereafter.
- The Company has also demonstrated and de-risked LFP production in full scale commercial equipment at its pilot line.

### NMC622 and NMC811:

- In 2017, the Company successfully piloted NMC622 with 60% nickel content.
- In 2018, the Company began efforts on NMC811 with 80% nickel content, which provides relatively high energy density and has applications in longer range EVs.
- In 2020, the Company announced a breakthrough development of a coated nanocrystal cathode material for lithium-ion batteries that is providing up to four (4)-times improvement in longevity compared to its uncoated versions of the same material. This technology is applicable to various cathode materials but is especially relevant to nickel-rich NMC materials, where coatings on each nanocrystal protect against side-reactions when larger clusters of these crystals break apart from repeated charge and discharge cycles.
- NMC materials are further improved by the Nano One's M2CAM technology which
  reduces complexity, cost, waste, and carbon footprint in the lithium-ion battery
  supply chain by using class 1 metallic powders instead of metal sulfates, enabling
  local supply while eliminating reliance on foreign supply chains of concern. The
  Company is now working with various automotive manufacturers, cathode
  producers and cell producers to evaluate its patented One-Pot process and coated
  NMC based materials.
- NMC811 and other Ni-rich NMC equivalents are being developed at lab- and prepilot scale with techno-economic feasibility, engineering studies and third-party evaluations underway to validate commercial interest for pilot and full-scale production.

<u>LNMO or HVS</u>: The largest single challenge in solid state batteries is to design a stable and commercially viable interface between the solid electrolyte, of polymer, ceramic or glass composition, and the solid cathode and anode materials on either side of the electrolyte. Nano One's coating of LNMO (or HVS) stabilizes the interface between cathode and electrolyte because the coating prevents side reactions while allowing the rapid transfer of lithium-ions between the electrolyte and the cathode. In comparison to other cathode materials, HVS is faster charging and operates at higher voltage enabling



increased power and energy densities. HVS is also free of cobalt and the associated supply chain risk.

- In 2018, the Company first synthesized HVS and has since validated its application in various lithium-ion battery cells, both internally and with third parties including automotive manufacturers, cathode producers and cell manufacturers and expects to see commercialization and adoption of HVS cells in the latter half of this decade.
- HVS is at pre-pilot and pilot-scale, has undergone third-party evaluations to validate commercial interest for pilot and full-scale production and awaits commercial market applications.

# **Business Objectives**

In the near term (one to three years), Nano One intends to focus on:

- Automating and expanding capacity of the existing Candiac Facility to generate commercial sales, as well as sample and validate LFP product to secure future customer offtake that supports the licensing business model.
- Complete 25,000 tpa LFP CAM plant engineering design with Worley Chemetics for licensing/joint venture. Design key reactor and kiln components and qualify key equipment for LFP CAM package.
- Sales of One-Pot LFP technology licenses through the Worley License and Alliance Agreement and also direct to existing collaborators and potential customers.
- Leverage Candiac to offer technical and commercial support to licensee customers, including, piloting services for A to C scale product sampling, securing new plant offtakes, key operator training and demonstration of the process technology at scale.
- Diversify region-specific raw materials supply bases to support licensee growth by qualifying and validating key raw materials feedstocks.
- Continuously improving the One-Pot process for LFP on cost and efficiency, and continuously improving the quality of the LFP as per customer feedback.
- Advance M2CAM across all chemistries and add to IP portfolio.
- Continue drawing down on government funding and augment with other government funding programs where applicable.
- Engage on public policy and related matters that impact supply chain and trade development in markets including Canada, US, Europe and the Indo Pacific region.

Nano One's long-term opportunities (three to five years), include:

 Generating revenues from licensing fees (upfront and annual production royalties) in pursuit of its "capital light" broad technology adoption ambitions, ongoing sales



from the production of LFP and potential joint ventures via the Development Project model into different markets.

- LFP production in North America, Europe and the Indo-Pacific regions are the nearest-term opportunity driven by the emerging ESS, Al data centre and EV segment needs.
- The Design-One-Build-Many growth strategy will support rapid industrialization of One-Pot LFP technology that markets need and the Worley Alliance will also focus on other cathode chemistries such as NMC, LMFP and next gen as commercial markets for these materials form and grow.

## **Electric Vehicle and Renewable Energy Stationary Storage Industry**

The lithium-ion battery market is being driven, partly, by demands for lower-cost entry-level vehicles, long-range luxury vehicles, heavy-duty industrial vehicles, fast-charging applications and wide range of stationary energy storage applications. These batteries must be safe, reliable and cost-effective, using environmentally sustainable supply chains with an increasing importance on localization, diversification and security of supply.

Stationary energy storage, low-cost and heavy-duty EVs, including fleet vehicles, as well as start-stop, hybrid and mid-range EVs, are all battery applications that tend to favour technologies that can be charged and discharged more often, requiring the durability, low-cost and safety of LFP batteries.

Long-range EVs tend to favour batteries with higher energy-densities of nickel cobalt aluminum oxide ("NCA"), NMC and hybrids ("NMCA") with nickel content ranging anywhere from 33%-95%. However, the latest generation of LFP battery packs, leverage its thermal stability, to crowd cells in tighter formation with LFP pack level energy density, and EV range that is now on par with some NMC.

It is also possible to use both LFP and NMC batteries in fast charging applications, however fast charging high voltage cells using HVS or LNMO CAM are projected to emerge as commercial alternatives where high speed low energy density charging plays a role.

These factors have dramatically increased worldwide demand and supply chain development of iron-rich LFP reducing the market share of NMC and delaying the commercial role out of manganese-rich LNMO battery chemistries. There is an increasing need to develop independence and security with local supply chains that are environmentally scalable and economically competitive, when compared to established supply chains in China and Asia. The Company's One-Pot and M2CAM process technologies enable the use of battery-grade metal feedstocks that eliminates dependence on foreign supply chains of concern while reducing wastewater and making production easier-to-permit than established industrial methods.



To date, the Company has demonstrated the synthesis of LFP, LMFP, NMC, NCA, LMR-NMC, LNMO and other cathode materials with energy densities on par with industry standards. This demonstration underlines the opportunity of Nano One's technology to reduce waste, cost and carbon footprint in the supply chain, and it enables a wider range of lithium and other battery metal inputs sourced securely for the rapidly growing stationary energy storage and EV market. This supplements other benefits of the Company's technologies including improved cathode material durability, power, energy, and processing costs.

# Specialized Skills and Knowledge

The Company requires the specialized skills and knowledge of public market specialists, operations managers, safety specialists, production experts, equipment operators, material scientists, electrochemists, thermal processing engineers, process engineers, hydro metallurgists, battery testers, technicians, business development, government liaison, and regional marketing expertise. Most of these skills are already in place and where gaps develop, the Company is readily able to identify individuals and companies in the Canadian talent pool as employees, consultants, and/or advisors.

# **Patents and Proprietary Technology**

The Company believes that monetization of its technology is best pursued by protecting its proprietary position with patents and by pursuing a licensing strategy. This is seen as a capitally efficient means to leverage the supply chain, manufacturing, distribution, and legal strengths of multinational materials producers, while allowing the Company and its collaborators to focus on core strengths in technology development.

As at the date of this AIF, the Company has been issued forty-eight (48) patents which were issued by various jurisdictions including Canada, China, Japan, Korea, Taiwan, India, Korea and the United States. The patents have expiries ranging between ten (10) to nineteen (19) years from the patent issuance date.

Patent Family	Short Description	Title
US 9,136,534 CA 2,906,009	Method of powder generation of a complexecelle	Complexometric Precursor Formulation For Industrial Production Of High Performance Fine And Ultrafine Powders And Nanopowders For Specialized Applications
CA 2,905,525	Reactor designs for complexecelle formation	Reactor Vessel for Complexecelle Formation

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US 10,374,232 KR 10-1854708	Method of forming powder by complexecelle generation for battery applications	Complexometric Precursor Formulation Methodology for Industrial Production of Fine and Ultrafine Powders and Nanopowders for Lithium Metal Oxides for Battery Applications
CA 2,905,519 US 9,698,419 US 10,283,763 CN 105594023 CN 106848231 JP 6271599 KR 10-1839000 TW I517487	Battery having a defined discharge capacity, defined porosity, low sodium content and low sulfur content.	Complexometric Precursor Formulation Methodology for Industrial Production of Fine and Ultrafine Powders and Nanopowders of Layered Lithium Mixed Oxides for Battery Production
US 9,159,999 US 10,446,835 CA 2,905,984	Method of forming powder by formation of a surface interface.	Complexometric Precursor Formulation Methodology For Industrial Production Of Fine and Ultrafine Powders and NanoPowders of Layered Lithium Mixed Oxides for Battery Applications
US 11,329,284 US 11,616,230 CA 3,023,602	A method for making cathode materials for lithium-ion batteries	Fine and Ultrafine Powders and Nanopowders of Lithium Metal Oxides for Battery Applications
US 11,018,331 US 11,735,712 TW 1672852	A method for stabilizing battery cathode materials by a phosphate treatment	Phosphate Stabilized Lithium Ion Battery Cathode
TW I837083 US 11,121,370 JP 7100648 CN 110495052 KR 10-2443307	Formation of a precursor for a cathode active material using a digestible feedstock and a multi-carboxylic acid	One-Pot Synthesis for Lithium Ion Battery Cathode Material Precursors
US 10,189,719 CA 3,068,802	A process that uses metal acetates as a feedstock for making cathode materials	Improved Process for the Manufacture of Lithium Metal Oxide Cathode Materials
US 11,677,077 TW 107124658	Novel method for LFP production	Synthesis of Olivine Lithium Metal Phosphate Cathode



US 11,811,056 IN 512878 CA 3,093,557 CN 112074973 JP 7090736 KR 10-2631552	A process for fabrication of novel coated single crystal cathode active materials	One-pot synthesis of LiNbO <sub>3</sub> -coated spinel LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub>
TW 1753429 CN 113875045 JP 7295275	A developed method for coating cathode active materials	Stabilized High Nickel NMC Cathode Materials for Improved Battery Performance
TW 1705031	Novel method for making LFP cathode materials	Improved Synthesis of Olivine Lithium Metal Phospate Cathode Materials
JP 7426506	Method to make cathode materials using metal feedstocks	Alternative Method for Making Lithium Battery Cathodes
JP 7518972 TW 1867244	Formation of lithium metal oxide cathodes from elemental metal	Alternative One-pot Process for Making CAM Precursor using Metal Feedstocks
TW I832104 JP 7503208	Electrolyte used in a battery can be simplified and requires fewer additives	Improved Battery with Spinel Cathode
US 12,077,452	Lithiated NMC precursor material prepared in the One- Pot process prior to thermal processing	A Novel Intermediate Material Between Precursor and Cathode Active Material
TW 1849754	Kiln design for efficient calcination and thermal processing of CAM	

Nano One's intellectual property (IP) was developed and is wholly owned by Nano One. The Company continues to expand patent coverage of its proprietary technology and has various patents which have been granted or approved across the globe. There are also many pending patent applications throughout the world. In February 2024, the Company announced the expansion of its patent portfolio adding further IP protection of the One-Pot process, single crystal coating process, and M2CAM process technologies. The Company additionally announced on December 18, 2024, the allowance and/or issuance



of several new patents to its portfolio. These recent patents not only fortify Nano One's IP portfolio but also add value for its shareholders and enhance the Company's technological edge in a rapidly evolving market.

Patents, trade secrets, flowsheets, knowhow, plant design and people are at the core of what Nano One's partners, shareholders, and prospective customers value. Not only are these intellectual property assets critical to Nano One's leadership position, but they have also enabled the Company to pilot LFP using its technology and demonstrate at scales that are relevant to the automotive industry. When bundled with detailed engineering plans, innovative supply chains, and performance targets, Nano One believes that its technology could be widely licensed for a new generation of sustainable and cost-effective CAM production that is cleaner, more easily permitted and securely established in North America, Europe, and the Indo-Pacific regions.

# **Competitive Conditions**

The lithium-ion battery market is competitive, with significant barriers to entry, long paths to commercialization, complex supply chains and many technical and market uncertainties.

In response to these challenges, the Company is developing industrial process technology and materials for license to, or joint venture with, established industrial participants in cathode materials manufacturing, and more broadly, the lithium-ion battery, energy and chemical industries. LFP presents an opportunity for production by leveraging Nano One's One-Pot LFP technology, its deeply experienced LFP manufacturing team in Québec and the growing market interests in North America, Europe and the Indo-Pacific region from Automotive OEM's, battery grid storage and niche market end users requiring localized battery materials sourcing.

The lithium-ion battery market and the cathode production part of the supply chain are in a multi-year growth phase that is expected to persist through the next decade or two, driven largely by the need for energy security and independence in the global transition to electric mobility and industrial energy storage. The Company has developed a cathode production platform technology, capable of making a wide range of cathode materials and enabling the Company to shift, remain relevant, and compete with evolving technological and chemistry trends.

The Company has had very few direct competitors as most cathode producers use established production methods and are focused on manufacturing and expansion rather than disrupting supply chains through process innovation. With the global efforts to localize or near-shore supply chains, a few competitors have emerged to address the LFP demand outside of China.

The Company has been developing its cathode production technology, human resources, and know-how since 2002, and has a growing portfolio of intellectual property, trade secrets, and engineering design packages for full scale production facilities.



China, Korea, Japan, and Taiwan have dominated battery and cathode manufacturing over the last few decades, but as jurisdictions such as the North America, Europe and India ramp up the adoption of EVs and stationary energy storage, the Company is pursuing opportunities to develop its business, license its technology, initiate joint ventures, and begin piloting, demonstration and commercial production activities in many diverse geographic areas. Energy security and supply chain resiliency are expected to accelerate adoption of lithium-ion batteries and the required manufacturing base, to create a wider range of business opportunities for the Company.

The Company has developed significant interest from various industry segments looking for lower cost, lower supply chain risk, lower carbon footprint, improved energy security, and improved performance. The Company is working to create demand for its technologies through collaboration with OEMs (automotive, industrial, consumer electronic), cell manufacturers, miners and innovators.

The Candiac Facility has been converted to Nano One's patented One-Pot process to expedite the commercialization of LFP technology and is staffed by the most experienced LFP production team outside of Asia. The facility and team have extensive experience with ISO, IATF, health, safety and other programs essential to tier 1 customer relationships. Industrial scale samples from the Candiac Facility are being evaluated by third parties for sales qualification and the Company is also marketing samples and preliminary CAM production plant design packages to potential licensees..

### **Economic Dependence**

Though the Company has various technology development agreements in effect and these development programs are integral to the Company's continued technological developments and process improvements, the Company's business is not substantially dependent on any single contract.

The adoption of the Company's technology for the commercial production of cathode materials depends on third party validation of its technology and product through materials testing, cost modelling, engineering planning, and joint development as precursors to commercial traction through licensing and/or joint ventures. The Company has multiple joint development programs and collaborations underway, and as such, is not dependant on the success of any single arrangement to further its business objectives.

#### **Environmental Matters**

An obligation to incur environmental costs may arise from the future requirement to decommission its plant and dispose of related infrastructure and chemical materials. The Company has no known obligations of any significance to incur environmental costs, related to its research and development activities, as at December 31, 2024 and the date hereof.



### **Employees**

As at December 31, 2024, the Company had 104 employees, inclusive of key management. The Company considers its employee relations to be amicable. In addition, the Company engages contractors and consultants from time to time for administrative, legal and other services as required. As at the date hereof, the Company had 106 employees.

#### **RISK FACTORS**

In addition to all other information set out in this AIF, the Company's Management's Discussion and Analysis and audited financial statements and related notes thereto for the fiscal year ended December 31, 2024, the following specific factors could materially adversely affect Nano One and/or the business, financial condition and results of operations. Other risks and uncertainties that the Company does not presently consider to be material, or of which the Company is not presently aware, may also become important factors that affect the future business, financial condition and results of operations. The occurrence of any of these risks could materially and adversely affect the business, prospects, financial condition, results of operations or cash flow. This AIF also contains forward-looking statements that involve risks and uncertainties. Actual results achieved could differ materially from those anticipated in the forward-looking statements as a result of a number of factors including the risks described below. See "Cautionary Note Regarding Forward-Looking Information".

# Funding and Global Economy Risk

The volatility of global capital markets has generally made the raising of capital by equity or debt financing more difficult. While the Company is successfully accessing strategic pools of capital with government programs and industrial interests, it may also become dependent upon capital markets to raise additional financing in the future. As such, the Company is subject to liquidity risks in meeting its operating expenditure requirements and future development cost requirements in instances where adequate cash positions are unable to be maintained or appropriate financing is unavailable. The Company seeks to manage its liquidity risk through a rigorous planning, budgeting and forecasting process to help determine the funding requirements to support its current operations, development and expansion plans. However, the factors described above may impact the ability to raise equity or obtain loans and other credit facilities in the future and on terms favourable to the Company and its management. If these levels of volatility persist or if there is a further economic slowdown, the Company's operations, the Company's ability to raise capital and the trading price of the Company's securities could be adversely impacted. As the Company's operations expand and reliance on global supply chains increases, the impact of tariffs and other trade barriers, pandemics (such as COVID-19), significant geopolitical risk and conflict globally may have a sizeable and unpredictable impact on the Company's business, financial condition and operations. The United States recently introduced broad tariffs against Canada, Mexico and China and has threatened to do so against other countries, resulting in retaliatory tariffs or the threat of retaliatory tariffs.



Further, support for protectionism and rising anti-globalization sentiment in Canada, the United States and other countries may slow global growth. In particular, a protracted and wide-ranging trade conflict between the United States and various other countries, including Canada, Mexico and China, could adversely affect global economic growth. The COVID-19 pandemic and the ongoing conflicts between Russia and Ukraine and in the Middle East, including the global response to such conflicts as it relates to sanctions, trade embargos, export controls, military support and any restrictive actions in response thereto, have resulted in significant uncertainty as well as economic and supply chain disruptions, changes in commodity prices and implications in the financial markets. Should another significant variant of COVID-19 develop or the conflicts between Russia and Ukraine or in the Middle East go on for an extended period of time or expand territorially, or should other geopolitical disputes and conflicts emerge in other regions, this could result in material adverse effects to the Company.

# Dependence on Management and Key Personnel

The Company's success depends largely upon the continued services of its executive Officers and other key employees. From time to time, there may be changes in the Company's executive management team resulting from the hiring or departure of executives, which could disrupt its business. If the Company is unable to attract and retain top talent, its ability to compete may be harmed. The Company's success is also highly dependent on its continuing ability to attract, identify, hire, train, retain and motivate highly qualified personnel. Competition for highly skilled technical, research and development, management, sales, and other employees is high in the Company's industry, and the Company may not be successful in attracting and retaining such personnel. Failure to attract and retain qualified executive Officers and other key employees could have a material adverse effect on its business, prospects, financial condition, results of operations, and cash flows.

# Performance and Scalability

To be successful, Nano One will have to successfully scale its internally developed technology while maintaining high product quality and reliability. If Nano One cannot maintain high product quality on a large scale, and in time for wide-scale adoption, the Company could be adversely affected.

Any interruption in operations at the current facility could result in the inability to successfully execute the business plan. A number of factors could cause interruptions, including, but not limited to, equipment malfunctions or failures, work stoppages or slow-downs, damage to or destruction of the facility, or regional power shortages. The success of the Company and its ability to compete are substantially dependent on its internally developed technologies.



# Counterparty Risk

The Company may also be exposed to counter-party risk through its contractual arrangements with current or future collaborations, joint venture partners, offtake or licencing partners and other parties. In the event such entities fail to meet their contractual obligations, such failures could have a material adverse effect on the Company and its cash flow from operations.

# Intellectual Property Protection

The Company cannot provide any assurance that any intellectual property applications will be approved. Even if they are approved, such patents, trademarks or other intellectual property registrations may be successfully challenged by others or invalidated. The success of the Company and its ability to compete are substantially dependent on its internally developed technologies and processes which the Company will need to protect through a combination of patent, copyright, trade secret and trademark law.

The trademark, copyright, and trade secret positions of the Company's business are uncertain and involve complex and evolving legal and factual questions. In addition, there can be no assurance that competitors will not seek to apply for and obtain trademarks and trade names that will prevent, limit or interfere with the Company's processes. There can be no assurance that the Company will have the financial resources to defend its patents, trademarks, and copyrights from infringement or claims of invalidity. Litigation may be necessary in the future to enforce the Company's intellectual property rights, to protect the Company's trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement. Any such litigation could result in substantial costs and diversion of resources and could have a material adverse effect on the Company's business, operating results, and financial condition. There can be no assurance that the Company's means of protecting its proprietary rights will be adequate or that competitors will not independently develop similar services or products. Any failure by the Company to adequately protect its intellectual property could have a material adverse effect on its business, operating results and financial condition.

The patent positions of emerging companies can be highly uncertain and involve complex legal and factual questions. Thus, there can be no assurance that any patent applications made by or on behalf of the Company will result in the issuance of patents, that the Company will develop additional proprietary products that are patentable, that any patents issued or licensed to the Company will provide the Company with any competitive advantages or will not be challenged by any third parties, that the patents of others will not impede the ability of the Company to do business or that third parties will not be able to circumvent the patents assigned or licensed to the Company. Furthermore, there can be no assurance that others will not independently develop similar products, duplicate any of the Company's products or, if patents are issued and licensed to the Company, design around the patented product developed for the benefit of the Company.



Since patent applications are maintained in secrecy for a period of time after filing, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, the Company cannot be certain that the inventors of the patents were the first creators of inventions covered by pending applications, or that it was the first to file patent applications for such inventions. There can be no assurance that the Company's patents, if issued, would be valid or enforceable by a court or that a competitor's technology or product would be found to infringe such patents.

The Company is not currently aware of any claims asserted by third parties that the Company's intellectual property infringes on their intellectual property. However, in the future, a third party may assert a claim that the Company infringes on their intellectual property. If the Company is forced to defend against these claims, which may be with or without any merit or whether they are resolved in favour or against the Company, the Company may face costly litigation and diversion of management's attention and resources. As a result of such a dispute, the Company may have to develop costly non-infringement technology or enter into license agreements which may not be available at favourable terms.

# Management of Growth

The Company could experience growth that could put a significant strain on each of the Company's managerial, operational and financial resources. The Company must implement and constantly improve its operational and financial systems and expand, train, and manage its employee base to manage growth. In addition, the Company expects that its operational and management systems will face increased strain as a result of the expansion of the Company's technologies. The Company might not be able to effectively manage the expansion of its operations and systems, and its procedures and controls might not be adequate to support its operations. In addition, management might not be able to make and execute decisions rapidly enough to exploit market opportunities for the expansion of the Company's technologies.

There may be delays or unexpected developments in completing any future construction or expansion projects under consideration, which could cause the construction costs of these projects to exceed estimates or projections, result in substantial delays or prevent the project from commencing commercial operations. Various factors could contribute to construction cost overruns, construction halts or delays or the failure to commence commercial operations, including: delays in obtaining, or the inability to obtain, necessary land rights, permits and licences; delays and increased costs to integrate any potential new projects into the existing business structure; the inability to acquire or maintain land use and access rights; the failure to receive contracted third-party services; supply chain disruptions, including as a result of changes in international trade laws, regulations, agreements, treaties, taxes, tariffs, duties or policies of Canada, the US or other countries in which the Company's suppliers are located; work stoppages; labour disputes; weather interferences; unforeseen engineering, environmental and geological problems, including, but not limited to, discoveries of contamination, protected plant or animal species or habitat, archaeological or cultural resources or other environment-related



factors; unanticipated cost overruns in excess of budgeted contingencies; lack of adequate supporting utilities and necessary infrastructure; and failure of contracting parties to perform under contracts.

If the Company is unable to manage its growth effectively, its business, results of operations, and financial condition will suffer. Failure to effectively manage growth could also result in difficulty in launching new processing technology or enhancing existing processing technology, declines in quality or end-user satisfaction, increases in costs or other operational difficulties, and any of these difficulties could have a material adverse effect on its business, prospects, financial condition, results of operations, and cash flows.

# Competition

Despite efforts by the Company to protect its proprietary rights on which the Company's business is dependent, that competitive solutions could emerge and adversely affect the Company's ability to achieve broad market acceptance and, consequently, limit its ability to generate revenue and profits from new products.

The ability to generate significant revenue and profits depends on the market demand for the Company's products and technology offerings, which depends on a number of factors, including but not limited to market awareness availability and benefits, pricing and cost-competitiveness, and the effectiveness of marketing and distribution efforts, with any such factor potentially having a material adverse effect on the Company's business, results of operations and financial condition.

## Execution of Business Plan

The execution of the Company's business plan poses many challenges and is based on a number of assumptions. The Company may not be able to successfully execute its business plan. If the Company experiences significant cost overruns on its programs, or if its business plan is more costly than it anticipates, certain research and development activities may be delayed or eliminated, resulting in changes or delays to its commercialization plans, or the Company may be compelled to secure additional funding (which may or may not be available) to execute its business plan. The Company cannot predict with certainty its future revenues or results from its operations. If the assumptions on which its revenues or expenditures forecasts are based change, the benefits of the Company's business plan may change as well. In addition, the Company may consider expanding or re-focussing its business beyond what is currently contemplated in its business plan. Depending on the financing requirements of a potential acquisition or new product opportunity, the Company may be required to raise additional capital through the issuance of equity or debt. If the Company is unable to raise additional capital on acceptable terms, it may be unable to pursue a potential acquisition or new product opportunity.



Currently, the Company has no history of profitable operations or material revenue. As such, the Company is subject to many risks including under-capitalization, cash shortages, and limitations with respect to personnel, financial, and other resources.

# Technology May Not Be Effectively Commercialized

The Company's technology is currently in the commercialization phase. There is a risk that the technology and the Company's products will not perform as expected in certain applications and therefore, the Company may encounter delays to commercialization or may run the risk that the technologies will never be successfully commercialized. This means that the Company may never receive revenues or return on its technology development.

#### Technical Risks

Technical risks are inherent in the development and commercialization process, in that an immature technology could present unexpected challenges that exceed the planned time or financial resources to overcome. There can be no guarantee that the Company will be able to overcome technical risks associated with the development of its technology.

# Information Technology Interruptions or Breaches

The Company's business operations are managed through a variety of information technology systems. These systems govern all aspects of its operations. While the Company has implemented a number of measures to keep its technology systems fully operational and to mitigate the risks associated with a failure of its systems, the Company's systems are subject to damage or interruption from power outages, computer and telecommunications failures, computer viruses, cyber-attacks, security breaches, catastrophic events such as fires, floods, earthquakes, tornadoes, hurricanes, acts of war or terrorism, and usage errors by its employees. If the Company's information technology systems are damaged or cease to function properly, the Company may have to make a significant investment to fix or replace them and the Company may suffer loss of critical data and interruptions or delays in its operations in the interim. Any material interruption in its information technology systems could have a material adverse effect on the Company's business, prospects, financial condition, results of operations, and cash flows.

# Commodity Price, Raw Materials

Industrial chemicals used in Nano One's technologies are subject to market price fluctuations which may become more volatile as a result of global conflict, the imposition of tariffs, quotas or other protectionist measures, or accompanying government actions in response to fluctuations and sensitivities. Market price fluctuations could have a material adverse effect on Nano One's business plan execution. There can be no assurance that the price of the raw materials will not increase in the future.



# Supply Chain Disruptions

The Company may be affected by global supply chain and/or trade disruptions. Prolonged disruptions to the procurement of equipment or the flow of materials, supplies and services to the Company could have an adverse impact on its operating costs, capital expenditures and production schedules. These disruptions may be the result of macroeconomic matters outside of the Company's control or ability to mitigate, such as from natural disasters, transportation disruptions, economic instability, adverse changes in tariff, quota and trade protection measures (including recent tariffs initiated by the United States and retaliation by other countries as a result), global pandemics, and international sanctions, among others.

# Access To Specialized Equipment

The ability of the Company to compete and expand will be dependent on the Company having access, at a reasonable cost, to equipment, parts, and components, which are at least technologically equivalent to those utilized by competitors and to the development and acquisition of new competitive technologies. Failure by the Company to do so could have a material adverse effect on the Company's business, financial condition, results of operations and cash flow.

# Industry Risk

The profitability of the Company's technology depends in part on the demand for EVs. Demand for EVs is driven by a number of factors beyond the Company's control, including but not limited to consumer tastes and expectations, the availability of infrastructure to support EVs, government subsidies, and environmental regulations, among others. There can be no assurance that demand for EVs will be of a sufficient magnitude to warrant the kind of technological investment contemplated by the Company relating to the EV industry.

#### **Economic Conditions**

Current and future unfavourable economic conditions could negatively impact the Company's financial viability. Unfavourable economic conditions could also increase the Company's financing costs, decrease net income or increase net loss, limit access to capital markets, and negatively impact any of the availability of credit facilities to the Company. See "Funding and Global Economy Risk" above and "Public Health Crises Including COVID-19" below.

## Environmental Regulation

The Company's business and operations are subject to environmental regulation in the areas in which it operates. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Company's business and operations. Additionally, applicable regulations may change, and additional government regulations may be enacted that could impact the Company. We cannot predict the likelihood, nature



or extent of government regulation that may arise from future legislation or administrative action. If we are not able to maintain regulatory compliance, are slow or unable to adopt new requirements or policies, or effect changes to existing requirements, the Company may be adversely affected.

# Climate Change Legislation

Global governments are increasingly addressing climate change by focusing on reducing greenhouse gases ("GHGs"). Climate change policies are rapidly developing at various levels, and political and economic developments could significantly influence these measures. The implementation of GHG reduction strategies by governments, either to meet international targets or other objectives, may materially affect the operations and finances of the Company. The evolving regulatory landscape regarding climate change and GHG emissions presents uncertainties for the Company's operational and financial planning, especially in capital raising. Moreover, the potential adoption of climate change legislation could introduce operating restrictions or additional compliance costs, directly influencing the Company's production processes and market strategies.

# Access to Proprietary Information

The Company generally controls access to and distribution of its technologies, documentation, and other proprietary information. Despite efforts by the Company to protect its proprietary rights from unauthorized use or disclosure, parties may attempt to disclose, obtain, or use its solutions or technologies. There can be no assurance that the steps the Company has taken or will be taking will prevent misappropriation of its solutions or technologies, particularly in foreign jurisdictions where laws or law enforcement practices may not protect proprietary rights as fully as in Canada or the United States.

# Tariff Response

The potential for tariffs has resulted in significant capital market uncertainty as well as economic and supply chain disruptions, and changes in trading market pricing. The Company works with various governments and trade partners on the integration of supply chains to strengthen energy security, diversify supply chains and minimize the impact of trade uncertainty on its business resiliency. While the Company's licensing strategy could provide further relief from trade friction, there remains risk that tariffs, pandemics, and/or geopolitical disputes and conflicts could further disrupt capital markets, business opportunities and supply chains and cause material adverse effects to the Company.

## Conflicts in Ukraine and the Middle East and International Response

The recent conflicts in Ukraine and the Middle East, and the accompanying international response including economic sanctions, has been disruptive to the global economy, with increased volatility in commodity markets, including higher material and supply prices, international trade and financial markets, all of which have a trickle-down effect on supply chains. There is substantial uncertainty about the extent to which these conflicts will continue to impact global economic and financial affairs, as the numerous issues arising



from the conflict are ever changing and there is the potential for escalation of these conflicts both within Europe and globally. There is a substantial risk of market and financial turmoil arising from these conflicts which could have a material adverse effect on the economics of the Company and the Company's ability to operate its business.

# Volatility of Market Price of Common Shares

The market price of the Common Shares may be volatile. The volatility may affect the ability of holders to sell the Common Shares at an advantageous price. Market price fluctuations in the Common Shares may be due to the Company's operating results failing to meet the expectations of securities analysts or investors in any quarter, downward revision in securities analysts' estimates, governmental regulatory action, adverse change in general market conditions or economic trends, acquisitions, dispositions or other material public announcements by the Company or its competitors, along with a variety of additional factors, including, without limitation, those set forth under "Cautionary Note Regarding Forward-Looking Information". In addition, the market price for securities on stock markets, including the TSX, is subject to significant price and trading fluctuations. These fluctuations have resulted in volatility in the market prices of securities that often have been unrelated or disproportionate to changes in operating performance. These broad market fluctuations on the TSX may adversely affect the market price of the Common Shares.

# Additional Capital Requirements

The Company has incurred annual losses since inception and it plans on continuing to make significant expenditures to support its business growth and may require additional funds to respond to business challenges, including the need to expand sales and marketing activities, develop new processing technologies to enhance its existing technology, enhance its operating infrastructure, and acquire complementary businesses and technologies. Accordingly, the Company may need to engage in equity or debt financings to secure additional funds. If the Company raises additional funds through further issuances of equity or convertible debt securities, the Company's existing shareholders could suffer significant dilution, and any new equity securities the Company issues could have rights, preferences, and privileges superior to those of holders of the Company's Common Shares. Any debt financing secured by the Company in the future could involve restrictive covenants relating to its capital raising activities and other financial and operational matters, which might make it more difficult for it to obtain additional capital and to pursue business opportunities.

The Company can provide no assurance that sufficient debt or equity financing will be available on reasonable terms or at all to support its business growth and to respond to business challenges and failure to obtain sufficient debt or equity financing when required could have a material adverse effect on its business, prospects, financial condition, results of operations, and cash flows.



# **Negative Cash Flow from Operations**

The Company had negative operating cash flows for the fiscal year ended December 31, 2024. Although the Company anticipates it will have positive cash flows from operating activities in future periods, the Company cannot guarantee it will have a cash flow positive status in the future.

# **Going Concern**

The Company's annual consolidated financial statements for the fiscal year ended December 31, 2024, have been prepared on a going concern basis which contemplates the realization of assets and the discharge of liabilities and commitments in the ordinary course of business. Should the Company be unable to continue as a going concern, it may be unable to realize the carrying value of its assets and to meet its liabilities as they become due. The Company's operations to date have been financed primarily by the issuance of common shares, and various government funding. The continuing operations of the Company are dependent upon its ability to continue to source adequate capital and liquidate assets, as necessary. Despite this, there can be no assurance that the Company will be able to continue securing ongoing capital sources in the future, and on terms favourable to the Company.

#### Government Grants

The Company has received various government grants, and it may seek to obtain government grants and subsidies in the future. Any of the Company's existing grants or new grants that may be obtained may be terminated, modified or recovered by the granting governmental body under certain conditions. The Company may also be subject to audits by government agencies as part of routine audits of its activities funded by government grants. As part of an audit, these agencies may review the Company's performance, cost structures and compliance with applicable laws, regulations and standards. Funds available under grants must be applied by the Company toward the research and development programs specified by the granting agencies, rather than for the Company's programs generally. If any of the Company's costs are found to be allocated improperly, the costs may not be reimbursed, and any costs already reimbursed may have to be refunded. Accordingly, an audit could result in an adjustment to the Company's results of operations.

# Forward-Looking Statements May Prove Inaccurate

Investors are cautioned not to place undue reliance on forward-looking statements. By their nature, forward-looking statements involve numerous assumptions, known and unknown risks and uncertainties, of both a general and specific nature, that could cause actual results to differ materially from those suggested by the forward-looking statements or contribute to the possibility that predictions, forecasts or projections will prove to be materially inaccurate. Additional information on the risks, assumptions and uncertainties



are found in this AIF under the heading "Cautionary Note Regarding Forward-Looking Information".

# Risks associated with mergers, acquisitions and dispositions

On February 28, 2025, the Company closed a transaction to sell and lease back its Candiac Property. By disposing of the property, the Company forfeited ownership benefits, including potential appreciation in property value and control over the property. The terms of the leaseback arrangement are subject to prevailing market conditions at the time of the transaction. Adverse changes in market conditions could result in unfavorable lease terms, higher costs, or other adverse effects. The transition from ownership to leaseback may involve operational disruptions, including changes in property management and maintenance responsibilities. These disruptions could affect the Company's ability to efficiently utilize the property and maintain its operational standards. The leaseback arrangement involves reliance on the counterparty's ability to fulfill its obligations under the lease agreement. Any default or financial instability of the counterparty could pose significant risks to the Company's continued use of the property.

The Company may in the future, seek to expand the business through acquisitions and investments.

Acquisitions will be in part dependent on management's ability to identify, acquire and develop suitable acquisition targets in both new and existing markets. In certain circumstances, acceptable acquisition targets might not be available. Acquisitions involve a number of risks, including: (i) the possibility that the Company, as successor owner, may be legally and financially responsible for liabilities of prior owners; (ii) the possibility that we may pay more than the acquired company or assets are worth; (iii) the additional expenses associated with completing an acquisition and amortizing any acquired intangible assets; (iv) the difficulty of integrating the operations and personnel of an acquired business; (v) the challenge of implementing uniform standards, controls, procedures and policies throughout an acquired business; (vi) the inability to integrate, train, retrain and motivate key personnel of an acquired business; (vii) the potential disruption of our ongoing business and the distraction of management from our day-to-day operations; and (viii) an inability to realize the full extent of, or any of, the anticipated benefits of a merger or acquisition transaction, including failure to realize projected revenue gains or achieve expected cost savings within the assumed timeframe.

The above risks and difficulties, if they materialize, could disrupt the ongoing business, distract management, result in the loss of key personnel, increase expenses and otherwise have a material adverse effect on our business, results of operations and financial performance.

## International joint development agreements

Because we are a British Columbia corporation, and because we have joint development agreements with parties in other countries, there is a risk that the foreign governments



will implement protective measures which make it more difficult to conduct business in these markets. There can be no assurance that the various government licenses, funding programs and approvals or amendments thereto that from time to time may be sought will be granted at all or with conditions satisfactory to the Company or, if granted, will not be cancelled or will be renewed upon expiry, or that income tax laws and government incentive programs relating to the Company's business, and the lithium ion battery industry generally, will not be changed in a manner which may adversely affect the Company. Further there is a risk that certain joint development agreements, ultimately, may not result in any business arrangements. Additionally, any joint development collaboration could be unsuccessful which could result in limiting revenues and product development.

# Public Health Crises, Including COVID-19

A local, regional, national or international outbreak of a contagious disease, such as COVID-19, could have an adverse effect on local economies and potentially the global economy, which may adversely impact the price and demand for materials required all along the supply chain the Company currently relies upon and will rely upon for its development and expansion plans. COVID-19 could affect the Company's ability to conduct operations and may result in temporary shortages of staff to the extent the Company's work force is impacted. Such an outbreak, if uncontrolled, could have a material adverse effect on the business, financial condition, results of operations and cash flows.

Product liability lawsuits against us could cause us to incur substantial liabilities, and we may be subject to product recalls for product defects that are self-imposed or imposed by regulators.

In the event of a failure of a future product incorporating our technology, such as a recreational vehicle or truck, we may be subject to potential product liability lawsuits. Under certain circumstances, our customers may be required to recall or withdraw the products incorporating our technology. Even if a situation does not necessitate a recall or market withdrawal, product liability claims may be asserted against the Company. Even if a product liability claim is unsuccessful, the negative publicity surrounding any assertion that the products caused illness or physical harm could adversely affect the Company's reputation and brand equity.

#### Future Revenue

The Company's future revenue is difficult to forecast, likely to fluctuate and may not follow past trends or be indicative of the Company's future performance quarter to quarter. The Company's future revenue, if any, and results will be influenced by a variety of factors, many of which are outside of the Company's control, including, competitive conditions within the industry, changes to technologies, new products or services, and pricing by competitors, and market acceptance of the Company's products. Any of such factors



could have a material adverse effect on the Company's results of operations and financial condition.

# Corruption, Bribery and Sanctions

The Company is required to comply with anti-corruption and anti-bribery laws, including the Criminal Code (Canada), the Corruption of Foreign Public Officials Act (Canada) and the U.S. Foreign Corrupt Practices Act and other applicable laws. The Company has implemented an Anti-Bribery & Corruption Policy, which all directors, officers and employees are required to comply. Further, the operations of the Company may also be impacted by anti-terrorism, economic or financial sanction laws, such as the United Nations Act (Canada), the Special Economic Measures Act (Canada), and the Freezing Assets of Corrupt Foreign Officials Act (Canada), among others. Such sanction laws and any regulations, orders or policies issued thereunder may impose restrictions and prohibitions on trade, financial transactions, investments, and other economic activities with sanctioned or designated foreign individuals or companies from a target country, industries, markets, countries or regions within countries. Although the Company does not believe that it is in contravention of such sanction laws, there is no guarantee that the Company is or will be in full compliance at all times and that there will not be a material adverse effect on the Company's reputation, business, results of operations, and financial condition.

# The introduction of new supply chain due diligence and reporting requirements could expose the Company to certain risks

In May 2023, the *Fighting Against Forced Labour and Child Labour in Supply Chains Act* was passed and came into force on January 1, 2024. Pursuant to the new legislation, any company that is subject to the reporting requirements, including the Company, is required to file an annual report with respect to its supply chains. Further, in late 2024 the federal government signaled its intention to create a new and more onerous supply chain due diligence regime overseen by a new oversight agency, whereby reporting entities will be required to scrutinize their international supply chains for human rights risks and take action to resolve any such risks. While the Company is currently unaware of any forced or child labour in any of our supply chains, the increased scrutiny on the supply chains of Canadian companies could uncover the risk or existence of forced or child labour in a supply chain to which the Company has a connection, which could negatively impact the reputation of the Company. The Company is committed to meeting its obligations under the Modern Slavery Act and its report in respect of the financial year ending December 31, 2023 can be found on the Company's website at www.nanoone.ca.

#### **DIRECTORS AND OFFICERS**

The following table sets forth the name of each of our directors and executive officers, their province or state and country of residence, their position(s) with the Company, their principal occupation during the preceding five years, and the date they first became a director or officer of the Company as at the date of this AIF.



Name, Position(s) with the Company and Place of Residence (2)	Principal Occupation (1) (2)	Date(s) Served as a Director or Officer Since	Ownership or Control Over Voting Shares Held (2)
Anthony Tse Chair & Director (independent) United Kingdom	Board Director and Strategic Advisor.	October 1, 2024	Nil
Dan Blondal CEO and Director British Columbia, Canada	The Company's CEO since March 2015.	March 5, 2015	1,767,134
Lyle Brown Director (independent) British Columbia, Canada	Partner of Culver & Co., an accounting firm.	March 5, 2015	259,620
Dr. Joseph Guy Director (non-independent) North Carolina, USA	Patent Agent since 1992. Patent Filing Specialists Inc. since 2018.	March 5, 2015	239,858
Gordon M. Kukec Director (independent) British Columbia, Canada	Independent consultant and advisor.	September 7, 2021	435,813
Carla Matheson Director (independent) British Columbia, Canada	Independent consultant and advisor.	December 15, 2021	8,400



Name, Position(s) with the Company and Place of Residence (2)	Principal Occupation (1) (2)	Date(s) Served as a Director or Officer Since	Ownership or Control Over Voting Shares Held (2)
Lisa Skakun  Director (independent)  British Columbia, Canada	Chief Legal, Regulatory and Corporate Affairs Officer at Coast Capital Savings Federal Credit Union since July 2018.	June 15, 2022	4,150
Stephen Campbell Chief Technology Officer British Columbia, Canada	The Company's CTO since October 2018. Principal Scientist of the Company from September 2015 to September 2018.	October 9, 2018	139,972
Dan Martino Former Chief Financial Officer British Columbia, Canada	The Company's CFO from January 2020 to January 15, 2024. Principal at Donaldson Brohman Martin, CPA Inc. (DBM CPA) since November 2018.	January 20, 2020 to January 15, 2024	25,907
Carlo Valente Chief Financial Officer British Columbia, Canada	The Company's CFO from January 15, 2024.	January 15, 2024	5,000
Alex Holmes Chief Operating Officer British Columbia, Canada	The Company's COO since February 2021.	January 31, 2021	147,599
Denis Geoffroy Chief Commercialization Officer Québec, Canada	The Company's Chef Commercialization Officer since November 1, 2022.	November 1, 2022	37,500



Name, Position(s) with the Company and Place of Residence (2)	Principal Occupation (1)	Date(s) Served as a Director or Officer Since	Ownership or Control Over Voting Shares Held (2)
Kelli Forster SVP People and Culture British Columbia, Canada	The Company's SVP, People and Culture since August 2022.	August 2, 2022	4,451
Adam Johnson SVP External Affairs British Columbia, Canada	The Company's SVP, External Affairs since April 3, 2023	April 3, 2023	34,088
Pamela Kinsman Former Corporate Secretary  Director Sustainability & Corporate Affairs  British Columbia, Canada	The Company's Corporate Secretary from October 14, 2021 to January 15, 2024.	October 14, 2021 to January 15, 2024	25,382
Leanne Likness Swanson Corporate Secretary Alberta, Canada	The Company's Corporate Secretary from January 15, 2024.	January 15, 2024	Nil

#### Notes:

- 1) Unless otherwise stated above, any directors named above not elected at the last annual general meeting have held the principal occupation or employment indicated for at least five years.
- 2) The information as to province or state and country of residence, principal occupation, and number of shares beneficially owned by the directors and officers (directly or indirectly or over which control or direction is exercised) is not within the knowledge of the management of the Company and has been furnished by the respective directors and officers. The information is presented as of the date hereof.

The directors of the Company are elected at each annual general meeting to hold office until the next annual general meeting or until their successors are elected or appointed.



As of the date of this AIF, five of the Board's seven directors are independent. Independence is in part a legal and regulatory construct. It is formally assessed annually and considered continually throughout the year to ensure the directors can act objectively and in an unfettered manner, independent of management and free from any interest and any business or other relationship which could, or could reasonably be perceived to, materially interfere with their ability to act in the Company's best interests. Dr. Joseph Guy is considered "not independent" as his company, Patent Filing Specialists Inc., provides services to the Company in connection with the filing of its patent applications.

As of the date hereof, the Board has established three committees: the Audit Committee, the People, Compensation and Governance Committee, and the Health, Safety, Environment and Sustainability Committee. A copy of the Audit Committee Charter, which prescribes the duties and obligations of the Audit Committee, is annexed as Schedule "A" to this AIF. The composition of the Company's committees as at the date of this AIF is set out as follows:

<b>Board Committee</b>	Member	Status	
Audit Committee	Carla Matheson (Chair)	Independent	
	Anthony Tse	Independent	
People, Compensation and Governance Committee	Lisa Skakun (Chair)	Independent	
	Anthony Tse	Independent	
	Carla Matheson	Independent	
Health, Safety, Environment and Sustainability Committee	Joseph Guy (Chair)	Non-Independent	
	Anthony Tse	Independent	

As at the date hereof, the current directors and executive officers of the Company, collectively, beneficially own, directly and indirectly, or exercise control or direction over 3,134,874 Common Shares, representing approximately 2.8% of the total number of Common Shares outstanding. The statement as to the number of Common Shares beneficially owned, directly or indirectly, or over which control or direction is exercised by the directors and executive officers of the Company as a group is based upon information furnished by the directors and executive officers.

## **Cease Trade Orders, Bankruptcies, Penalties or Sanctions**

No director or executive officer of the Company is, or within ten years prior to the date hereof has been, a director, chief executive officer or chief financial officer of any company (including the Company) that (i) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days, that was issued while the director or executive officer was acting in the capacity as



director, chief executive officer or chief financial officer; or (ii) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days, that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

Other than as set out below, no director or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company (i) is, or within ten years prior to the date hereof has been, a director or executive officer of any company (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or (ii) has, within ten years prior to the date hereof, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer, or shareholder.

On October 25, 2022, the Ontario Securities Commission (the "OSC" or "Commission") approved a settlement agreement (the "Settlement Agreement") among Staff of the OSC ("Staff"), Plateau Energy Metals Inc. ("Plateau"), Alexander Holmes and Philip Gibbs to settle allegations made by Staff in a Notice of Hearing and Statement of Allegations issued pursuant to sections 127 and 127.1 of the Ontario Securities Act (the "Act"). The allegations related to misleading and selective disclosure of Plateau, leading to breaches of Ontario securities laws and conduct contrary to the public interest, with respect to a decision by a Peruvian mining regulator that threatened Plateau's mining rights over certain properties in Peru. In March 2019, Plateau's Canadian directors and executives became aware of regulatory threats to Plateau's mining rights in Peru which it knew or reasonably ought to have known were material. Plateau did not inform the public until July 31, 2019. Mr. Holmes was Plateau's CEO at the relevant times of the allegations.

On November 2, 2022, the Capital Markets Tribunal issued an order (the "Order") approving the Settlement Agreement and reprimanding Plateau, Mr. Holmes, and Mr. Gibbs. Pursuant to the Order, in addition to reprimands of Plateau and Mr. Gibbs, Mr. Holmes is prohibited from acting as a director or certifying officer, as defined in National Instrument 52-109 - *Certification of Disclosure in Issuers' Annual and Interim Filings*, of any reporting issuer for a period of two years following the date of the Order and was ordered to pay an administrative penalty and a portion of costs of the OSC investigation. The Order is wholly unrelated to Nano One and is not expected to impact the Company's business operations. The Order does not impact Mr. Holmes' ability to perform his present role at Nano One.



#### **Conflicts of Interest**

Certain of the directors and/or executive officers of the Company serve (and may in the future serve) as directors and/or executive officers of other companies and therefore, it is possible that a conflict may arise between their duties as a director and/or executive officer or member of management of the Company and their duties as a director and/or executive officer of such other companies. The directors and executive officers of the Company are aware of the existence of laws governing accountability of directors and executive officers for corporate opportunity and requiring disclosures by directors of conflicts of interest and the Company will rely upon such laws in respect of any directors' and executive officers' conflicts of interest or in respect of any breaches of duty by any of its directors or executive officers. All such conflicts will be disclosed by such directors or executive officers in accordance with the BCBCA and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law.

#### LEGAL PROCEEDINGS AND REGULATORY ACTIONS

To the best of Company's knowledge, there are no material legal proceedings by or against the Company or affecting any of its interests as at December 31, 2024 or the date hereof nor are we aware that any such proceedings are contemplated.

Furthermore, there are no: (a) penalties or sanctions imposed against the Company by a court relating to securities legislation or by a securities regulatory authority during its most recently completed fiscal year; (b) other penalties or sanctions imposed by a court or regulatory body against the Company that would likely be considered important to a reasonable investor in making an investment decision in the Company; or (c) settlement agreements the Company entered into before a court relating to securities legislation or with a securities regulatory authority during its most recently completed fiscal year.

#### **AUDIT COMMITTEE**

#### The Audit Committee Charter

The Company's Audit Committee is governed by an Audit Committee Charter. A copy of the Company's Audit Committee Charter is attached hereto as Schedule "A".

# **Composition of the Audit Committee**

The Company's Audit Committee is comprised of two independent directors: Carla Matheson (Chair) and Anthony Tse.

All the Audit Committee members are "financially literate", as defined in NI 52-110, as all have the industry experience necessary to understand and analyze financial statements of the Company, as well as the understanding of internal controls and procedures necessary for financial reporting.



The Audit Committee is responsible for the review of both interim and annual financial statements for the Company. For the purposes of performing their duties, the members of the Audit Committee have the right at all times, to inspect all the books and financial records of the Company and to discuss with management and the external auditors of the Company any accounts, records and matters relating to the financial statements of the Company. Audit committee members meet periodically with management and annually with the external auditors.

# Relevant Education and Experience of Members of the Audit Committee

Every member in the Audit Committee has sufficient education and experience to perform their responsibilities in relation to the Audit Committee, including:

- Understanding the accounting principles used by the Company to prepare its financial statements;
- Having the ability to assess the general application of such accounting principles in connection with the accounting for estimates, accruals and provisions;
- Experience preparing, auditing, analyzing, or evaluating financial statements that
  present a breadth and level of complexity of accounting issues that are generally
  comparable to the breadth and complexity of issues that can reasonably be
  expected to be raised by the Company's financial statements, or experience
  actively supervising one or more individuals engaged in such activities; and
- An understanding of internal controls and procedures for financial reporting.

The relevant education and/or experience of each member of the Audit Committee is as follows:

- Ms. Matheson is a Chartered Professional Accountant (CPA, CA) with over ten years of experience in a variety of industries, specializing in business development, mergers and acquisitions and financial reporting for public and private corporations. Ms. Matheson is currently the Chief Financial Officer of Plank Ventures Ltd., an investment company targeting investments and business opportunities in the technology arena, with a focus on early-stage start-up companies that have developed a customer and revenue base and are seeking funding for expansion and serves as a director on the board at Tiny (formerly WeCommerce), which is listed on the TSX Venture Exchange. Additionally, Ms. Matheson completed the Institute of Corporate Directors (ICD) course on March 4, 2024.
- Anthony Tse has close to 30 years of private and public corporate experience in numerous high-growth technology industries and 15 years in the energy transition space - in particular the EV, energy storage sectors and lithium battery value chain. His roles have been predominantly in senior management, with a focus on strategy



and development, M&A and corporate finance internationally. He has managed businesses and operations across four continents spanning the Greater China and Asia region, Australia, and North and South America.

He is the former Managing Director and CEO of Galaxy Resources, where he served on the Board for over a decade and managed a global portfolio of lithium operations and project developments located in Australia, China, Argentina, and Canada. During his tenure he grew the company from a junior mining development company to become one of the top 5 lithium producers globally, following the creation of Allkem and its merger with Orocobre in 2021, with a market capitalization of over A\$6 billion. Allkem recently merged with Livent to create Arcadium.

He is currently a Board Director of Li-Cycle Corp. (NYSE: LICY), and Li-Metal (CSE: LIM). In addition, he is a Strategic Advisor to Sicona Battery Technologies

Aside from his industry roles, Anthony has held positions with leading institutional investors. He is a Senior Advisor to EMR Capital, a global natural resources private equity and was previously an Operating Partner with the Global Private Equity Group of Franklin Templeton (NYSE: BEN), a global asset management organisation.

# **Audit Committee Oversight**

At no time since the commencement of the Company's most recently completed fiscal year was a recommendation of the Committee to nominate or compensate an external auditor (currently, Davidson & Company LLP) not adopted by the Board.

#### **Pre-Approval Policies and Procedures**

The Audit Committee has adopted specific policies and procedures for the engagement of non-audit services as set out in the Audit Committee Charter of the Company. A copy of the Company's Audit Committee Charter is attached hereto as Schedule "A".

#### **External Auditor Service Fees**

In the following table, "audit fees" are fees billed by the Company's external auditor for services provided in auditing the Company's annual financial statements for the subject year. "Audit-related fees" are fees not included in audit fees that are billed by the auditor for assurance and related services that are reasonably related to the performance of the audit review of the Company's financial statements. "Tax fees" are fees billed by the auditor for professional services rendered for tax compliance, tax advice and tax planning. "All other fees" are fees billed by the auditor for products and services not included in the foregoing categories.



The aggregate fees accrued for or billed by the Company's external auditor in the last two fiscal years, by category, are as follows:

Fiscal Year Ending	Audit Fees-(1)	Audit-Related Fees <sup>(2)</sup>	Tax Fees	All Other Fees <sup>(3)</sup>
December 31, 2024	\$150,000	\$53,500	\$ -	\$ 10,000
December 31, 2023	\$159,000	\$52,000	\$ -	\$ -

#### Notes:

- (1) Audit Fees relate to amounts paid or accrued in relation to the associated fiscal year for the fiscal year end audit engagement.
- (2) Audit-Related Fees include amounts paid for interim review engagements.
- (3) Audit-Related Fees include consultations and attendances to matters other than the Company's fiscal year end audits and interim reviews.

## INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than disclosed elsewhere in this AIF, no director, senior officer or principal shareholder of the Company and no associate or affiliate of the foregoing have had a material interest, direct or indirect, in any transaction in which the Company has participated within the three-year period prior to the date of this AIF or will have any material interest in any proposed transaction, which has materially affected or will materially affect the Company.

## **MATERIAL CONTRACTS**

Except for contracts entered into in the ordinary course of business, the Company has not entered into any material contracts during the most recently completed financial year or before the most recently completed financial year which are still in force and effect, and which may reasonably be regarded as presently material other than as follows:

- 1. Investor Rights Agreement, June 16, 2022, between the Company and Rio Tinto Western Holdings Limited (Rio Tinto), whereby Rio Tinto holds a participation right in any future equity financings to maintain its pro rata ownership interest until no later than June 16, 2027.
- 2. Investor Rights Agreement, October 4, 2023, between the Company and Sumitomo Metal Mining Co. Ltd. ("SMM"), whereby SMM holds a participation right in in any future equity financings to maintain its pro rata ownership interest for a period of up to three (3) years from the effective date.



## NAMES AND INTERESTS OF EXPERTS

The Company's auditors are Davidson & Company LLP of 1200 - 609 Granville St, Vancouver, British Columbia V7Y 1G6. Davidson & Company LLP is independent of the Company according to its rules of professional conduct.

#### ADDITIONAL INFORMATION

Additional information relating to Nano One may be obtained from SEDAR+ at <a href="https://www.sedarplus.ca">www.sedarplus.ca</a> under the Company's profile.

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, options to purchase securities, and interests of insiders in material transactions, where applicable, are contained in the Company's information circular for its most recent annual meeting of securityholders as filed on SEDAR+ on June 21, 2024.

Additional financial information is provided in the Company's annual financial statements and Management's Discussion & Analysis for the fiscal year ended December 31, 2024.

# SCHEDULE "A" AUDIT COMMITTEE MANDATE

#### 1.0 PURPOSE AND AUTHORITY

- 1.1 The purpose of the Committee is to advise and assist the Board of Nano One Materials Corp. (the "Corporation") in fulfilling its oversight responsibilities relating to, among other things:
  - (a) the integrity of the Corporation's financial statements, financial disclosures and internal controls over financial reporting and disclosure controls and procedures;
  - (b) the Corporation's compliance with related legal and regulatory requirements;
  - (c) the qualifications, independence and performance of the Independent Auditor, together with the compensation of the Independent Auditor;
  - (d) the Corporation's ERM Program and the management and mitigation of significant risks identified thereunder;
  - (e) the related policies of the Corporation set out herein; and
  - (f) other matters set out herein or otherwise delegated to the Committee by the Board.
- 1.2 Consistent with this purpose, the Committee shall encourage continuous improvement of, and foster adherence to, the Corporation's policies, procedures and practices at all levels. The Committee shall also provide for open communication among the Independent Auditor, Management and the Board.
- 1.3 To perform its duties and responsibilities, the Committee has the authority to: (i) conduct investigations into any matters within its scope of responsibility; (ii) have unrestricted access to information, management and employees, and books and records of the Corporation and its affiliates; and (iii) directly access and communicate with the Independent Auditor.

#### 2.0 DEFINITIONS

- 2.1 In this Mandate:
  - (a) "Board" means the board of directors of the Corporation;
  - (b) **"Chair"** means the Chair of the Committee;
  - (c) "Committee" means the audit committee of the Board;
  - (d) "Core Audit Services" means services necessary to:
    - (i) audit the Corporation's annual financial statements;
    - (ii) review the Corporation's interim financial statements, as requested; and
    - (iii) audit internal controls over financial reporting in accordance with the requirements of all applicable laws, regulations and professional standards;
  - (e) "Corporation" means Nano One Materials Corp.;
  - (f) "CPAB" means the Canadian Public Accountability Board or its successor;
  - (g) "Director" means a member of the Board;
  - (h) **"ERM Program"** means the Corporation's Enterprise Risk Management Program that incorporates an effective risk management framework to identify, evaluate, manage, monitor and communicate key corporate risks;
  - (i) **"Financial Expert"** means an "audit committee financial expert" as defined in National Instrument 52-110 "Audit Committees";
  - (j) "Financially Literate" means having the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breath and complexity of the issues that can reasonably be expected to be present in the Corporation's financial statements;
  - (k) "Nominations and Governance Committee" means the nominations and

governance committee of the Board;

- (I) "Independent" means, in the context of a Member and in accordance with all applicable laws and stock exchange requirements, being free from any direct or indirect material relationship with the Corporation and its subsidiaries which, in the view of the Board, could reasonably be expected to interfere with the exercise of a Member's independent judgment;
- (m) "Independent Auditor" means the firm of chartered professional accountants, registered with the CPAB and appointed by the shareholders to act as external auditor;
- (n) "Management" means the executive officers of the Corporation;
- (o) "Mandate" means this Mandate of the Committee;
- (p) "MD&A" means the Corporation's Management's Discussion & Analysis prepared in accordance with the requirements of National Instrument 51-102 in respect of the Corporation's annual and interim financial statements;
- (q) "Member" means a Director appointed to the Committee;
- (r) "Related Party Transactions" means those transactions required to be disclosed under all applicable laws and stock exchange requirements which include, without limitation, transactions between: (i) executive officers, directors, principal shareholders or their immediate family members; and (ii) the Corporation or any of its subsidiaries; and

#### 3.0 ESTABLISHMENT AND COMPOSITION OF COMMITTEE

- 3.1 The Committee shall be comprised of three (3) or more Directors, each of whom is Independent and Financially Literate. No Member may be a member of Management or an employee of the Corporation or of any affiliate of the Corporation. The Board shall appoint to the Committee at least one (1) Director who is a Financial Expert.
- 3.2 Members shall be appointed at the first meeting of the Board after a meeting of the shareholders at which Directors are elected, or otherwise by resolution of the Board of Directors following such meeting of shareholders, and shall serve until: the next annual meeting of the shareholders; they resign; their successors are duly appointed; or such Member is removed from the Committee by the Board.

- 3.3 The Board may appoint a Member to fill a vacancy which occurs on the Committee between annual elections of Directors. If a vacancy exists on the Committee, the remaining Members shall exercise all of the powers of the Committee so long as at least three (3) Members remain in office.
- 3.4 No Member shall serve on more than three (3) public company audit committees (inclusive of the Corporation) without the prior approval of the Board.
- 3.5 The Board shall appoint a Chair on the recommendation of the Corporation's Nominations and Governance Committee, or such other committee as the Board may authorize. The Chair shall continue in that role until a successor is appointed.

#### 4.0 COMMITTEE MEETINGS

- 4.1 The Committee shall meet at least quarterly and such other times as it deems appropriate. Meetings of the Committee shall be held at the call of: (i) the Chair;
  - (ii) any two Members; or (iii) the Independent Auditor.
- 4.2 The Chief Executive Officer, the Chief Financial Officer, and the Independent Auditor shall receive notice of and, unless otherwise determined by the Chair, shall be entitled to attend all meetings of the Committee. For clarity, the Independent Auditor must attend the Committee meetings at which the Corporation's annual audited financial statements and unaudited interim financial statements are reviewed.
- 4.3 A quorum at any meeting of the Committee shall be two (2) Members.
- 4.4 Each Member shall have the right to vote on matters that come before the Committee.
- 4.5 Matters to be determined by the Committee shall be decided by a majority of votes cast at a meeting of the Committee where such matter is considered. Actions of the Committee may also be taken by instruments in writing signed by all of the Members.
- 4.6 The Chair shall act as chair of all meetings of the Committee at which the Chair attends, otherwise the Members present at the meeting shall appoint one of their number to act as chair of the meeting.
- 4.7 Unless otherwise determined by the Chair, the Corporate Secretary of the Corporation shall act as secretary of all meetings of the Committee.

- 4.8 The Committee shall periodically meet separately with Management and the Independent Auditor to discuss any matters that the Committee or any of these persons or firms believes should be discussed privately. The Committee shall conduct *in camera* sessions without Management present at each meeting of the Committee.
- 4.9 The Committee may invite any Directors, executive officers or employees of the Corporation or any other person to attend the meetings of the Committee to assist in the discussion and examination of the matters under consideration by the Committee.
- 4.10 The Committee may delegate authority to individual Members or subcommittees, if deemed appropriate.

#### 5.0 DUTIES AND RESPONSIBILITIES OF THE COMMITTEE

## A. Independent Auditor

- 5.1 The Committee shall consider and make recommendations to the Board, to be put to shareholders for approval at the AGM, in relation to the appointment, remuneration, re-appointment and removal of the Corporation's Independent Auditors.
- The Committee shall oversee the work of the Independent Auditor in connection with the Core Audit Services and any other services performed for the Corporation. The Independent Auditor shall report directly to the Committee and the Committee has the authority to communicate directly with the Independent Auditor.
- 5.3 The Committee shall oversee the resolution of any disagreements between Management and the Independent Auditor. The Committee shall discuss with the Independent Auditor matters relating to the conduct of the audit, including any problems or difficulties encountered and Management's responses thereto and any restrictions on the scope of activities or access to requested information.
- 5.4 The Committee shall pre-approve all Core Audit Services and audit-related services fees and other compensation related thereto performed by the Independent Auditor.
- 5.5 The Committee shall review and evaluate the qualifications, independence and performance of the Independent Auditor and its lead audit partner. Without limiting the foregoing, the Committee shall:

- (a) review and discuss with Management and separately with the Independent Auditor the results of the Corporation's annual Independent Auditor assessment process;
- (b) monitor the Independent Auditor's processes for maintaining independence, its compliance with relevant laws, regulations, and other professional requirements, including the guidance on the rotation of audit partner and staff and, if determined by the Committee, recommend to the Board that appropriate action is taken to ensure the independence of the Independent Auditor; and
- (c) at least annually, obtain and review a report from the Independent Auditor describing the firm's internal quality control processes and procedures, including any material issues raised by the most recent internal quality control review or peer review, or by any inquiry or investigation by governmental or professional authorities within the preceding five (5) years with respect to independent audits carried out by the Independent Auditor, and any steps taken to address such issues.

The Committee shall discuss any material issues identified with the Board and recommend any action that the Committee deems appropriate.

- 5.6 The Committee shall meet with the Independent Auditor prior to the audit to discuss the planning and staffing of the audit, including the general approach, scope, areas subject to significant risk of material misstatement, estimated fees and other terms of engagement.
- 5.7 Consult with the Board and management and provide oversight regarding the Corporation's consideration of hiring or contracting employees or former employees of the Independent Auditor.

# B. Non-audit Services Performed by the Independent Auditor

- 5.8 The Committee must review and pre-approve any service and the related fees, outside of the Core Audit Services, provided by the Independent Auditor. The pre-approval requirement is waived with respect to the provision of non-audit services if:
  - the aggregate amount of all such non-audit services that were not preapproved is reasonably expected to constitute not more than 5% of the total amount of fees paid by the Corporation and its subsidiary entities to the Independent Auditor during the fiscal year in which the non-audit services are provided;
  - b) such services were not recognized by the Corporation at the time of the

engagement to be non-audit services; and

- c) such services are promptly brought to the attention of the Committee and approved, prior to the completion of the audit, by the Committee or by one or more members of the Committee to whom authority to grant such approvals has been delegated by the Committee.
- 5.9 For any service, other than Core Audit Services, requiring specific pre-approval the Committee may delegate pre-approval authority to one or more of its Members in satisfaction of the pre-approval requirement set forth in this section Delegates must report all pre-approval decisions to the Committee at the next scheduled Committee meeting. A list of prohibited non-audit services is attached to this Mandate in Appendix "A".
- 5.10 Any proposed services exceeding the pre-approved fee levels will require additional specific pre-approval by the Audit Committee.
- 5.11 Requests or applications to provide services other than Core Audit Services which require separate approval by the Committee will be submitted to the Committee by both the Independent Auditor or its affiliates, and the Corporation's Chief Financial Officer.

# C. Financial Reporting

- 5.12 In consultation with Management and the Independent Auditor the Committee shall review and satisfy itself as to: (i) the integrity of the Corporation's internal and external financial reporting processes; (ii) the adequacy and effectiveness of the Corporation's disclosure controls and procedures (including those pertaining to the review of disclosure containing financial information extracted or derived from the Corporation's financial statements) and internal controls over financial reporting; and (iii) the competence of the Corporation's personnel responsible for accounting and financial reporting. Without limiting the generality of the foregoing, the Committee shall receive and review:
  - a) Reports, as necessary, regarding: (i) critical accounting estimates, policies and practices; (ii) any reserves, accruals, provisions and estimates that may have a material effect on the Corporation's financial statements; (iii) any pro forma, adjusted or restated financial information, forecasts, or projections; and (iv) the effect of regulatory and accounting initiatives, as well as off-balance sheet arrangements, on the Corporation's financial statements;
  - b) analyses by Management and the Independent Auditor regarding significant financial reporting issues and judgments made in connection with the preparation of the Corporation's annual and interim financial statements; and

- c) other material written communication between Management and the Independent Auditor.
- 5.13 The Committee shall, prior to public release, if applicable, review and discuss with Management and with others as it deems appropriate:
  - a) the Corporation's annual audited financial statements and unaudited interim financial statements and the Independent Auditor's related attestation reports, as well as any related MD&As;
  - b) the Independent Auditor's interim review reports, as applicable, and annual audit report to the Committee summarizing the scope, status, results and recommendations of the interim review of the Corporation's interim financial statements and of the audit of the Corporation's annual financial statements and related audit of internal controls over financial reporting, as applicable, and also containing at least: (i) the communications with respect thereto between the Independent Auditor and the Committee required by any applicable regulations and professional standards, including without limitation schedules of corrected and uncorrected quantitative and disclosure misstatements and significant deficiencies and material weaknesses in internal controls; (ii) the (at least) annual independence communication; (iii) the Management representation letter; and (iv) the documentation and communication required quarterly, as applicable, from the Independent Auditor;
  - c) the report to shareholders contained in the Corporation's annual report, as applicable; and
  - d) any other document that the Committee determines should be reviewed and discussed with Management and the Independent Auditor or for which a legal or regulatory requirement in that regard exists.
- 5.14 The Committee shall, prior to public release, review and discuss with Management and with others as it deems appropriate, the financial information to be disclosed in the Corporation's interim and annual or other news releases.
- 5.15 The Committee shall review and recommend the Corporation's annual audited financial statements together with the Independent Auditor's audit report thereon, disclosure controls and procedures, MD&As, related news releases and reports to shareholders for approval by the Board and subsequent public release, as well as inclusion of the noted financial statements in the Corporation's annual reports. The Committee, if deemed appropriate, shall review and approve the Corporation's unaudited interim financial statements, related interim MD&As and news releases, and their subsequent public release, on behalf of the Board.

- 5.16 The Committee shall, prior to public release, review and discuss with Management and with others as it deems appropriate, and recommend for approval by the Board as necessary:
  - a) any future oriented financial information, financial forecasts, future earnings guidance, as applicable, to be provided by the Corporation;
  - b) the Annual Information Form to be filed by the Corporation;
  - c) any prospectus or other offering documents and documents related thereto for the issuance of securities by the Corporation; and
  - d) other disclosure documents to be released publicly by the Corporation containing or derived from financial information.
- 5.17 The Committee shall review, discuss with Management and with others as it deems appropriate, the disclosures made by the Chief Executive Officer and Chief Financial Officer of the Corporation pursuant to their certification of the Corporation's annual and interim reports regarding significant deficiencies or material weaknesses in the design or operation of internal controls over financial reporting and any alleged fraud involving Management or other employees.
- 5.18 The Committee shall use reasonable efforts to satisfy itself as to the appropriateness of the Corporation's material financing, capital and tax structures.
- 5.19 The Committee shall prepare, or cause to be prepared, any reports of the Committee required to be included in the Corporation's public disclosures or otherwise required by applicable laws.
- 5.20 The Committee shall review, discuss with Management and with others as it deems appropriate, and approve all Related Party Transactions and the disclosure thereof.

# D. Risk Management and Other

- 5.21 The Committee shall be responsible for the oversight of the Corporation's ERM and shall report any actions or findings of the ERM program to the Board.
- 5.22 The Committee shall review and discuss with Management and others as it

- deems appropriate Management's report regarding identifying, assessing, managing and mitigating significant risks and related matters identified pursuant to the ERM program.
- 5.23 The Committee will oversee and assess the Corporation's fraud prevention controls and processes, and will review any reports provided by management on findings of fraud and the response thereto.
- 5.24 The Committee shall satisfy itself as to the appropriateness of the Corporation's internal controls and processes associated with the release of any sustainability disclosures.
- 5.25 In the event it's required, the Committee shall review and discuss with Management and others as it deems appropriate the quarterly report prepared by Management regarding any existing significant litigation and/or other material legal matters that could have a significant impact on the Corporation or its financial statements.
- 5.26 The Committee shall be responsible for the oversight of the Corporation's insurance programs, any renewals or replacements thereof, including in respect of directors' and officers' (D&O) insurance and indemnification of Directors.

#### E. Policies and Mandate

- 5.27 The Committee is responsible for the oversight of the following policies:
  - a) Whistleblower Policy, including overseeing procedures for the receipt, retention, and treatment of complaints regarding accounting, internal controls, or auditing matters as well as procedures for confidential, anonymous submissions by employees regarding questionable accounting or auditing matters as required by applicable law;
  - b) Corporate Disclosure Policy; and
  - c) other policies that may be established from time-to-time regarding accounting, financial reporting, disclosure controls and procedures, internal controls over financial reporting, oversight of the external audit of the Corporation's financial statements, and oversight of the internal audit function.
- 5.28 The Committee shall periodically review this Mandate and recommend any necessary amendments to the Nominations and Governance Committee for consideration and recommendation to the Board for approval, as deemed appropriate.

#### 6 REPORTING

6.1 The Chair, or another designated Member, shall report to the Board at each regular meeting on those matters that have been dealt with by the Committee since the last regular meeting of the Board.

## 7 REMUNERATION OF MEMBERS

7.1 Members and the Chair shall receive such remuneration for their service on the Committee as the Board may determine from time to time, having considered the recommendation of the Nominations and Governance Committee.

## 8 **GENERAL**

- 8.1 This Mandate shall be posted on the Corporation's corporate website at www.nanoone.ca.
- 8.2 The Committee shall annually review its own effectiveness and performance.
- 8.3 The Committee shall perform any other activities consistent with this Mandate, the Corporation's by-laws and applicable laws, that the Board or Committee determines are necessary or appropriate.
- 8.4 The Committee may, in its discretion and in circumstances that it considers appropriate, obtain advice and assistance from outside legal, accounting and other advisors and approve the engagement by the Committee or any Member of outside advisors or persons having special expertise, all at the expense of the Corporation. The Corporation shall provide appropriate compensation, as determined by the Committee, for the Independent Auditor, to any independent counsel or other advisors that the Committee chooses to engage, and for payment of ordinary administrative expenses of the Committee that are necessary and appropriate in carrying out its duties and responsibilities.

#### 9 OVERSIGHT FUNCTION

9.1 The Committee is not responsible for certifying the accuracy or completeness of the Corporation's financial statements or their presentation in accordance with IFRS Accounting Standards ("IFRS"), nor for guaranteeing the accuracy of the attestation reports of the Independent Auditor. The fundamental responsibility for the Corporation's financial statements, reporting, internal controls over financial reporting, and disclosure controls and processes rests with Management and, in accordance with its professional responsibilities, the Independent Auditor. Although the Committee has the responsibilities and powers outlined in this

Mandate, its members, who are appointed from the Board, provide broad oversight of the Corporation's day-to-day operations. It is not the duty of the Committee to plan or conduct audits or to determine that the Corporation's financial statements are complete and accurate and in accordance with IFRS. These tasks are the responsibility of Management, with the Committee performing an oversight function, and the Independent Auditors. Nothing in this Mandate is intended to modify or augment the obligations of the Corporation or the fiduciary duties of the Committee members or the Board under applicable laws.

This Committee Mandate was approved on November 8, 2023 and amended on September 18, 2024.

# Appendix A

#### **Prohibited Non-audit Services**

This list is not exhaustive and additional guidance and exemptions are set out in *Rule 204* of the Independence Standards of the CPA Code of Professional Conduct.

- Bookkeeping or other services related to the accounting records or financial statements of the Corporation, including:
  - maintaining or preparing the entity's, or related entity's, accounting records;
  - preparing the financial statements or preparing financial statements which form the basis of the financial statements on which the audit report is provided; or
  - preparing or originating source data underlying such financial statements.
- Financial information systems design and implementation.
- Appraisal or valuation services, fairness opinions or contribution-in-kind reports.
- Actuarial services.
- Contract internal audit services.
- Assurance services.
- Management functions.
- Legal support services.
- Human resource services.
- Corporate finance services such as broker-dealer, investment adviser or investment banking services.
- Expert services unrelated to the audit.
- Any services entailing a contingent fee or commission (not including fees awarded by a bankruptcy court when the audit client is in bankruptcy).
- Tax services to an officer of the audit client whose role is in a financial reporting oversight capacity (regardless of whether the audit client or the officer pays the fee for the services).