Nano One Materials Corp.

Management's Discussion & Analysis

For the three months ended

March 31, 2024

nanoOne

MANAGEMENT'S DISCUSSION & ANALYSIS ("MD&A") FOR THE THREE MONTHS ENDED MARCH 31, 2024

The following Management's Discussion & Analysis ("MD&A") of Nano One® Materials Corp. ("Nano One", "we", "our", the "Company") for the three months ended March 31, 2024, should be read in conjunction with our condensed interim consolidated financial statements for the three months ended March 31, 2024, and our audited annual financial statements for the year ended December 31, 2023, (collectively, the "financial statements") and related notes thereto. The financial statements have been prepared in accordance with IFRS Accounting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). All monetary amounts in this MD&A are expressed in Canadian dollars, unless otherwise indicated. The information contained herein is presented as at **May 14, 2024** (the "MD&A Date"), unless otherwise indicated.

For the purposes of preparing this MD&A, Management, in conjunction with the Board of Directors, considers the materiality of information. Information is considered material if: (i) such information results in, or would reasonably be expected to result in, a significant change in the market price or value of our common shares; or (ii) there is a substantial likelihood that a reasonable investor would consider it important in making an investment decision; or (iii) it would significantly alter the total mix of information available to investors. Management, in conjunction with the Board of Directors, evaluates materiality with reference to all relevant circumstances, including potential market sensitivity. The Board of Directors has approved the disclosure contained in this MD&A.

Continuous disclosure documents including our most recent Annual Information Form ("AIF"), annual MD&A, and audited consolidated financial statements, are filed with Canadian securities regulatory authorities on SEDAR+ (www.sedarplus.ca) and on our website at www.nanoone.ca.

Abbreviations

CAM	Cathode Active Material	**LFP**	Lithium Iron Phosphate
ESS	Energy Storage Solutions	**LNMO**	Lithium Nickel Manganese Oxide
FEL	Front-End Loading	**M**	Million or millions
GHG	Greenhouse Gas Emissions	**M2CAM**	Metal to Cathode Active Material
ICFR	Internal Controls over Financial Reporting	**NMC**	Lithium Nickel Manganese Cobalt
IRA	Inflation Reduction Act	**OEM**	Original Equipment Manufacturer
JDA	Joint Development Agreement	**PCAM**	Precursor Cathode Active Material
		tpa	Tonnes Per Annum

Forward-Looking Statements

This MD&A contains certain "forward-looking information" and "forward-looking statements" (collectively, "forward-looking statements"), within the meaning of applicable Canadian securities laws, which are based upon the Company's current internal expectations, estimates, projections, assumptions, and beliefs. All information, other than statements of historical facts, included in this MD&A that addresses activities, events or developments that the Company expects or anticipates will or may occur in the future is forward-looking information. Such statements can be identified using forward-looking terminology such as "believe", "expect", "plan", "likely", "may", "will", "should", "intend", or "anticipate", "potential", "proposed", "estimate" and other similar words, including negative and grammatical variations thereof, or statements that certain events or conditions "may", "should" or "will" happen, or by discussions of strategy. Forward-looking statements include estimates, plans, expectations, opinions, forecasts, projections, targets, guidance, goals, or other statements that are not statements of fact. Such forward-looking statements are made as of the date of this MD&A and, except as required by law, the Company is under no obligation to update or alter any forward-looking information.

Forward-looking statements in this MD&A may include, but are not limited to, statements with respect to: the performance of the Company's business and operations; the Company's ability to raise sufficient financing, if any when necessary, to continue its operations; estimated future working capital, funds available, uses of funds, and 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 Nano One's products; the functions and intended benefits of the Company's technology and products; the commercial development of the Company's technology and products; the commencement of a commercialization phase and entering into a definitive agreement with a party to plan, design, finance, construct and/or operate a cathode production facility; the Company's research and development programs; collaboration with material producers; regulatory changes; the competitive conditions of the industry and the Company's competitive position in the industry; 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; the Company's licensing, supply chain, and potential royalty arrangements; the purpose for expanding the Company's facilities; and the anticipated future gross revenues and profit margins of the Company's operations. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. The Company cannot guarantee future results, levels of activity, performance, or achievements. There are risks, uncertainties, and other factors, some of which are beyond the Company's control, which could cause actual results, performance, or achievements of the Company, as applicable, to differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements contained in this MD&A and those factors identified in the section "Risks and Uncertainties" in this MD&A and in the section titled "Risk Factors" in the Company's most recently filed Annual Information Form ("AIF") filed on SEDAR+.

INDEX

BUSINESS OVERVIEW

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

Nano One is a clean technology company with a patented, scalable, and low carbon intensity industrial process for the low-cost production of high-performance lithium-ion battery cathode materials. With strategic collaborations and partnerships, including automotive OEMs and strategic industry supply chain companies like Sumitomo Metal Mining, BASF, Umicore and Rio Tinto. Nano One's technology is applicable to electric vehicles, energy storage, and consumer electronics, reducing costs and carbon intensity while improving environmental impact.

Nano One is piloting its technology at various scales ranging from 1 to 200 tpa, and demonstrating its technology using full scale commercial equipment as modular production solutions for license, joint venture, and independent production opportunities, leveraging Canadian talent and critical minerals for emerging markets in North America, Europe, and the Indo-Pacific region.

The Q4 2022 acquisition and conversion of the Candiac facility in Québec to the One-Pot process has accelerated Nano One's path to commercialization. Production trials conducted in 2023 using the One-Pot process in our commercial scale reactors have successfully de-risked the production of LFP at full scale with performance results consistent to lab scale. This advancement has enabled commercial scale LFP samples to be sent to qualified customers in Q1 2024 for the purposes of evaluation, validation and entering into potential binding offtake agreements.

Nano One began operating a 200 tpa LFP pilot plant ("pilot plant") in Candiac, Québec in Q4 2023 and is progressing a feasibility (FEL 3) study for a 25,000 tpa LFP commercial plant. In December 2023, we announced orders are confirmed from our pilot plant for LFP samples for the purposes of commercial evaluation and collaboration with potential future buyers of our LFP CAM.

Our Technology and Intellectual Property

One-Pot Process and M2CAM® Technologies

Nano One's patented One-Pot process is engineered to make cathode materials directly from non-sulfate forms of battery metals. This eliminates the need for intermediate metal sulfates, all sodium sulfate by-product, and all wastewater, which avoids permitting obstacles in jurisdictions with strict environmental regulations such as Canada, USA, and Europe. The waste streams avoided can amount to three times the product stream, and the One-Pot process simplifications also reduces operating costs, capital equipment costs and GHG emissions. Furthermore, the process uses lithium feedstock in the form of carbonate rather than hydroxide, which is costly, corrosive and harder-to-handle.

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 metal powder feedstocks rather than metal sulfates or other salt powders. Metal powders are one-fifth of the weight of metal sulfates, avoiding the added costs, energy, and environmental impact of converting to sulfate and shipping and handling of waste.

Life Cycle Assessment (LCA)

In December 2023, we 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 pCAM and 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.

Intellectual Property

We continue to expand patent coverage of our proprietary technology and now have forty-one (41) patents which have been granted or approved across the globe. We also have many pending patent applications throughout the world. Our February 21, 2024, press release announced the expansion of our patent portfolio adding further intellectual property protection of the One-Pot process, single crystal coating process and M2CAM process technologies.

The intellectual property was developed and is wholly owned by Nano One. We have filed other patent applications that are considered pending and may later apply for additional patent protections to further strengthen our intellectual property and technology going forward, although no assurances can be given that patents will be granted from such endeavours.

Patents, trade secret, 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 our leadership position, but they have also enabled us to pilot LFP using our technology and demonstrate at scales that are relevant to the automotive industry. When bundled with detailed engineering plans, innovative supply chains, and performance targets, we believe our technology could be widely licensed for a new generation of sustainable and cost-effective cathode production that is cleaner, more easily permitted and securely established in North America, Europe, and the Indo-Pacific region.

Key Business Developments

License and Alliance Agreement with Worley Chemetics®

On May 1, 2024, we entered into 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 will jointly develop, market, and deploy One-Pot process enabled cathode plant designs, helping accelerate the deployment of One-Pot process LFP production and other cathode chemistries. Nano One and Worley will jointly develop a CAM package that incorporates Nano One's 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.

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 One-Pot enabled CAM package will be marketed, sold, and deployed to a wide range of customers in North America, Europe, the Indo-Pacific and other regions globally, enabling them to develop competitive CAM production assets to meet emerging market demand in renewable energy storage and electric vehicle sectors. The CAM package is expected to reduce risk and cost, while accelerating the timeline to project certainty and financial investment decision.

Nano One remains committed to its 2024 objectives and commercialization plans as described below.

2024 OBJECTIVES AND COMMERCIALIZATION UPDATES

A 25,000 tpa LFP commercial plant development project will require completion of the FEL 3 study (see below), product validation and customer offtake, and feedstock supply agreements. These items are fundamental for project financing and are a top priority for Nano One in 2024.

Optimization and product validation work will continue through 2024 and into 2025 for the purposes of:

a) Generating product sales and first revenues, and expanding capacity of the LFP pilot plant up to 1,000 to 2,000 tpa, at the Company's existing facilities in Candiac, Québec;

b) Securing larger volume customer offtakes in support of the current 25,000 tpa LFP plant development project;

c) Informing the FEL 3 design study and financial investment decisions for the 25,000 tpa LFP project; and

d) Developing, marketing, licensing, and deploying of One-Pot enabled LFP CAM packages (engineering process design packages) in collaboration with Worley (see "*License and Alliance Agreement with Worley Chemetics*" above)

We are in active dialogue with government agencies, project finance lenders, and strategic partners to secure funding for both growth activities, a commercial LFP plant, and ongoing innovations. A final investment decision will only be made following the securing of plant-specific funding.

We are focused on meeting market demand while harnessing government support. It is our intention to use the Candiac facility as an industrial-scale LFP piloting and demonstration production facility that generates revenues while supporting the design, engineering, and construction of our first commercial LFP plant. This plant will have at least one production line and will serve as a blueprint for modular multi-line production facilities under a hybrid business model that includes licensing, joint venture and independent production in Canada, USA, Europe, Indo-Pacific region, and other emerging battery jurisdictions. This strategy is aimed at serving demand from the energy storage, mobility, and electric vehicle markets.

Site Selection and Government Incentives

As an integral part of the feasibility study, dialogue with governments and their agencies is focused on key factors that impact our ability to scale-up rapidly and meet market demands. It is in our best interests to consider a broader set of site options that may be more suitable for future growth expansion beyond a 25,000 tpa LFP plant development project. Key considerations include government incentives in the form of grants and forgivable loans, access to sufficient utilities (power, water, natural gas) and location preferences from collaborating stakeholders. With the support of provincial and municipal governments we have identified potential site options in Québec and Ontario. We remain in active discussions with governments at all levels, and other strategic partners to narrow down site selection. We are closely monitoring government incentive programs in North America and have been engaged in conversations with several levels of government to ensure that we can align our business plans and scale-up to meet emerging market needs in North America.

Commercial Plans

Our 200 tpa LFP pilot plant was commissioned in Q4 2023, and our future commercial plans include the possibility of expanding its capacity up to 1,000 to 2,000 tpa, and the design and development of a 25,000 tpa LFP commercial plant. The existing facilities are equipped with commercial scale equipment that have significantly de-risked our capacity to scale and we have confirmed orders for tonne-scale sample evaluations. Our goal is to launch LFP in North America, followed by Europe and the Indo-Pacific region. Expanding our pilot plant up to a 2,000 tpa demonstration plant is contingent on initial sales commitments, customer technology validation, capital support from government, and financial returns.

Through to March 31, 2024, we have incurred approximately $200,000 (no amounts incurred during Q1 2024), in engineering and planning costs related to this potential expansion of the pilot plant to 2,000 tpa.

Feasibility Study (FEL 3) (ongoing)

On February 27, 2024, we announced the commencement of a feasibility study (FEL 3) 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 modular Design-Once-Build-Many strategy to address the broader LFP market. The FEL 3 study will provide an optimal production line layout and maximum utility of key equipment. Furthermore, this study will address Nano One's mid-to-longer-term objective of deploying multi-line facilities under license or joint venture with partners in Indo-Pacific, North American, and European jurisdictions. Progress at Nano One's pilot plant 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.

Through to March 31, 2024, Nano One had cumulatively incurred on a cash-basis approximately $8,100,000 in converting and commissioning the One-Pot 200 tpa LFP pilot plant. Of this amount, approximately $400,000 was paid as at and during the three months ended March 31, 2024. These costs are largely aligned with budgets and expectations.

The abovementioned FEL 3 study is underway, to which $800,000 had been paid through to March 31, 2024 (entirely during Q1 2024), in relation to the 25,000 tpa LFP commercial plant.

Pre-Feasibility Study (FEL 2) (completed)

In October 2023, we announced the completion of a FEL 2 pre-feasibility study which estimates that the optimal capacity for a One-Pot LFP production line is 12,500 tpa and that two such lines (25,000 tpa LFP commercial plant) could be built at our site in Candiac, Québec, making it significantly more efficient in size, footprint, and capital cost than other commercial methods of making LFP.

REVIEW OF FINANCIAL RESULTS

We report results as a single operating and business segment being the research, scale-up, and piloting of a patented process for commercial production of CAM for lithium-ion battery applications.

Q1 2024 compared to Q4 2023

Three months ended	**March 31, 2024 $**	December 31, 2023 $	Change $
Expenses			
Amortization	818	894	(76)
Business development and investor relations	98,018	150,130	(52,112)
Depreciation	66,145	77,365	(11,220)
Finance costs	50,198	52,465	(2,267)
General and administrative expenses	693,622	708,883	(15,261)
Professional and consulting, net	582,595	806,152	(223,557)
Research and operational expenses, net	2,620,094	2,414,333	205,761
Share-based payments	1,265,713	674,211	591,502
Wages, benefits and fees, net	5,011,804	4,129,147	882,657
Loss from operating expenses	**(10,389,007)**	(9,013,580)	(1,375,427)
Interest income	345,637	512,812	(167,175)
Loss on disposal of equipment	(25,603)	(247,624)	222,021
Other income	42,983	-	42,983
Loss and comprehensive loss	**(10,025,990)**	(8,748,392)	(1,277,598)

- Professional and consulting decreased as a result of various offsetting components primarily relating to reduced capital markets and advisory fees as the Company actively reduced such activities for 2024, which also contributed to reduced business development and investor relations expenses. Additionally, patent legal fees reduced as a result of normal course fluctuations driven by the timing and level of patent-related filings and grants.

- Research and operational expenses increased as a result of progressing the feasibility study (FEL 3) for a 25,000 tpa LFP plant development project. Research and operational costs in Q1 2024 exceeded the amount Q4 2023 which was particularly characterized by costs related to completion of the FEL 2 pre-feasibility study on a single commercial line (October 2023), the Life Cycle Assessment (December 2023), and initiating customer evaluations of LFP samples.

- Share-based payments (non-cash expense) increased due to the grant and accruals for vesting of stock options and RSUs in January 2024, whereas the amount for Q4 2023 was attributable the October 2023 grant of DSUs in addition to amounts recognized for vesting stock options and RSUs.

- Wages, benefits and fees increased as a result of annual wage adjustments (effective January 1, 2024), in addition to accruing a portion of 2024 target short-term incentive compensation, and additional costs associated with our benefits programs.

Q1 2024 compared to Q1 2023

Three months ended	March 31, 2024 $	March 31, 2023 $	Change $
Expenses			
Amortization	818	633	185
Business development and investor relations	98,018	145,347	(47,329)
Depreciation	66,145	58,187	7,958
Finance costs	50,198	24,656	25,542
General and administrative expenses	693,622	668,154	25,468
Professional and consulting, net	582,595	602,941	(20,346)
Research and operational expenses, net	2,620,094	1,945,076	675,018
Share-based payments	1,265,713	221,450	1,044,263
Wages, benefits and fees, net	5,011,804	4,817,919	193,885
Loss from operating expenses	**(10,389,007)**	(8,484,363)	(1,904,644)
Interest income	345,637	418,081	(72,444)
Loss on disposal of equipment	(25,603)	(9,822)	(15,781)
Other income	42,983	-	42,983
Loss and comprehensive loss	**(10,025,990)**	(8,076,104)	(1,949,886)

Increases in most components of operating expenses are largely aligned and correlated with the factors discussed herein in terms of increased operating activity including advancing scale-up and piloting activities, personnel expansion and hiring, and the resulting increased general overheads related to expanded operations.

- Renewals of facility leases during the latter portion of 2023 drove finance costs higher in Q1 2024 compared to Q1 2023.
- Engineering and related studies including the FEL 3 feasibility study in Q1 2024 resulted in an increase in research and operational expenses which, during the comparative Q1 2023, was primarily characterized by activities including scale-up, piloting, and other engineering studies.
- Share-based payments is higher in Q1 2024, as there are more equity incentive awards vesting relative to the comparative period.
- Interest income was higher in Q1 2023 due to a higher average cash balance on which interest was earned.

REVIEW OF FINANCIAL CONDITION

Summary Financial Position and Key Metrics

	March 31, 2024 $	December 31, 2023 $	December 31, 2022 $
Cash and cash equivalents	23,093,333	31,868,882	39,445,395
Restricted cash	575,000	575,000	-
Current assets (all others)	1,659,742	1,835,321	3,182,564
Non-current assets	18,741,024	18,695,565	13,448,401
Total assets	**44,069,099**	52,974,768	56,076,360
Current liabilities	4,109,487	4,143,968	2,039,869
Non-current liabilities (lease liabilities)	1,233,233	1,344,144	587,122
Total liabilities	**5,342,720**	5,488,112	2,626,991
Total shareholders' equity	**38,726,379**	47,486,656	53,449,369
Key Financial Metrics:			
Working capital[1]	**21,218,588**	30,135,235	40,588,090
Liquid working capital[2]	**19,937,226**	28,691,624	38,891,919

[1] Represents current assets (including cash and cash equivalents and restricted cash) minus current liabilities.
[2] Represents working capital minus prepaid expenses and inventory.

Total assets are substantially comprised of cash and cash equivalents, and property, plant and equipment as at the reporting dates presented above. Further, property, plant and equipment has trended upwards due to capital expenditures on expanding research and scale-up activity with the procurement of new equipment, additional capitalized facility leases, and expenditures on the 200 tpa pilot plant in Candiac (in 2023).

During 2023 compared to 2022, the decrease in total assets was attributable to decreases in cash and cash equivalents, and receivables and prepayments exceeding the increases in property, plant and equipment and inventory. During 2024, the consumption of cash and cash equivalents and the net decrease in inventory were drivers of the decrease in total assets.

Total liabilities were comparable between March 31, 2024 and December 31, 2023, as each component thereof remained relatively consistent. Total liabilities increased in 2023 compared to 2022, as we leased additional office and research facilities starting in Q1 2023, and renewed other leases on our facilities during 2023. Additionally, payables increased in the normal course of business as the level of operating and investing expenditures have increased in alignment with our growth. Working capital has decreased in direct correlation to the use of cash in operating and investing activities.

Review of Cash Inflows

(Amounts are rounded)	**Three months ended March 31, 2024 $**	Three months ended December 31, 2023 $	**Three months ended March 31, 2024 $**	Three months ended March 31, 2023 $
Sources of cash and cash equivalents:				
Government programs (operating and investing activities)	49,000	14,000	49,000	3,366,000
Interest income (investing activities)	346,000	512,000	346,000	418,000
Private placement, net (financing activities)	-	16,843,000	-	-
Exercises of stock options and warrants (financing activities)	-	134,000	-	3,846,000
	395,000	17,503,000	**395,000**	7,630,000

Q1 2024 compared to Q4 2023

Government programs: Nominal amounts were received in both Q1 2024 and Q4 2023 related to wage reimbursements for internships and other qualified employment positions either relating to NRC-IRAP or other programs.

Q1 2024 compared to Q1 2023

Government programs: The amount for Q1 2023 comprises the SDTC Milestone 1 grant (approximately $3,300,000) with the residual relating to NRC-IRAP and other non-repayable grants relating to employment and wage reimbursements.

Summary of Cash Flows

Q1 2024 compared to Q4 2023

Three months ended	**March 31, 2024 $**	December 31, 2023 $	Change $
Operating activities			
Loss for the period	(10,025,990)	(8,748,392)	(1,277,598)
Adjustments for non-cash items	1,704,124	1,422,362	281,762
Interest income (reclassified to investing activities below)	(345,637)	(512,812)	167,175
Net change in non-cash working capital items	113,782	(1,197,645)	1,311,427
	(8,553,721)	(9,036,487)	482,766
Investing activities			
Interest income	345,637	512,812	(167,175)
Capital expenditures[1]	(436,890)	(1,857,046)	1,420,156
Purchase of standby letter of credit (restricted cash)	-	(575,000)	575,000
	(91,253)	(1,919,234)	1,827,981
Financing activities			
Equity financing, and exercises of stock options, net of share issue costs	-	16,977,522	(16,977,522)
Payments for facility leases	(130,575)	(154,822)	24,247
	(130,575)	16,822,700	(16,953,275)
Change in cash and cash equivalents	**(8,775,549)**	5,866,979	(14,642,528)
Cash and cash equivalents, beginning	**31,868,882**	26,001,903	
Cash and cash equivalents, ending	**23,093,333**	31,868,882	

[1] Capital expenditures includes purchases of equipment, payments on deposits and other assets, and payments for intangible assets. Engineering costs and FEL 2 and FEL 3 studies are included within operating activities.

Allocation of cash inflows from government assistance and cost recoveries **Three months ended**	**March 31, 2024 $**	December 31, 2023 $
Operating activities	48,626	242,803
Investing activities	-	504,302
	48,626	747,105

The decrease in cash used in operations was primarily attributable to a favourable fluctuation in working capital items.

Interest income reduced as the average cash balance subject to interest also reduced while market rates of interest remained steady. The decrease in capital expenditures is within normal course fluctuations and timing of expenditures alongside streamlining pre-commercial and expansion activities and reducing or deferring components of projects.

Q1 2024 compared to Q1 2023

Three months ended	**March 31, 2024 $**	March 31, 2023 $	Change $
Operating activities			
Loss for the period	(10,025,990)	(8,076,104)	(1,949,886)
Adjustments for non-cash items	1,704,124	597,461	1,106,663
Interest income (to investing activities)	(345,637)	(418,081)	72,444
Net change in non-cash working capital items	113,782	5,098,483	(4,984,701)
	(8,553,721)	(2,798,241)	(5,755,480)
Investing activities			
Interest income	345,637	418,081	(72,444)
Capital expenditures[1]	(436,890)	(751,673)	314,783
	(91,253)	(333,592)	242,339
Financing activities			
Equity financing and exercises of options and warrants, net	-	3,845,839	(3,845,839)
Payments for facility leases	(130,575)	(88,667)	(41,908)
	(130,575)	3,757,172	(3,887,747)
Change in cash and cash equivalents	**(8,775,549)**	625,339	(9,400,888)
Cash and cash equivalents, beginning of period	**31,868,882**	39,445,395	
Cash and cash equivalents, end of period	**23,093,333**	40,070,734	

[1] Capital expenditures includes purchases equipment, payments on deposits and other assets, and payments for intangible assets. Engineering costs and FEL 2 and FEL 3 studies are included within operating activities.

Allocation of cash inflows from government assistance and cost recoveries Three months ended	**March 31, 2024 $**	March 31, 2023 $
Operating activities	48,626	3,147,308
Investing activities	-	208,533
	48,626	3,355,841

The Q1 2023 favourable fluctuation in working capital items is primarily attributable to collection of approximately $800,000 in receivables that were acquired in the November 2022 acquisition of Johnson Matthey Battery Materials Ltd., and nearly $3,000,000 in SDTC funding that remained capitalized to deferred liabilities. Further favourable changes in receivables and prepayments, and accounts payable contributed to the positive fluctuation in working capital for Q1 2023. When backing out approximately $3,500,000 of the Q1 2023 fluctuation that was attributable to collection of receivables, and government funding, the excess in cash used in operating activities in Q1 2024 compared to Q1 2023 was approximately $1,400,000 which is directly correlated to the operational growth between the periods.

Similar to the Q1 2024 to Q4 2023 comparison above, the decrease in capital expenditures is attributable to streamlining pre-commercial and expansion activities and reducing or deferring components of projects.

Capital management

Our capital structure consists of the various components of shareholders' equity. When managing capital, we ensure our ability to continue as a going concern involves having sufficient capital to deploy on new and existing projects including commercialization objectives while generating returns on any excess funds and maintaining liquidity/accessibility to such funds. In order to facilitate the management of capital requirements, we prepare annual operating and capital expenditure budgets that are monitored regularly for variances and updated periodically depending on various factors, including but not limited to: business development and commercial arrangements, capital deployment, personnel planning, service contracts with vendors, access to financing, government program applications, and general capital market or industry conditions. The Board of Directors relies on the expertise of executive management to sustain future development of the business towards commercialization. Executive management reviews the capital structure on an ongoing basis. We are not subject to any externally imposed capital requirements and there were no changes to our approach to capital management during 2024.

We invest excess capital in high-interest savings accounts ("HISAs") and/or HISA funds which bear interest at variable rates (cash equivalents), as well as in guaranteed investment certificates ("GICs") bearing fixed rates of interest that are liquid and redeemable on demand (cash equivalents) and have original terms not exceeding 12 months. In specific circumstances the Company will invest in a GIC relating to standby letter of credit arrangements (restricted cash).

Our investments in HISAs, HISA funds, and GICs, facilitates the diversification of treasury amongst high-credit quality Canadian chartered banks. These holdings are accessible on demand or cashable.

Capital Sources

Future Sources and Base Shelf Prospectus

We are active dialogue with government agencies, project finance lenders and strategic partners to secure funding for growth activities, a LFP commercial plant, and ongoing innovations. We are evaluating structures and government incentives to bring One-Pot process LFP to market while being cognizant of shareholder's interests.

In support of our strategic objectives, the Company filed a short form base shelf prospectus ("Shelf Prospectus") dated April 26, 2024. The Shelf Prospectus permits the Company to make offerings of various financial securities, up to an aggregate total of $175,000,000 at our discretion, at any time during the 25-month period that the Shelf Prospectus remains valid.

During the 25-month period that the Shelf Prospectus remains valid, the nature, size and timing of any financings would be dependent on our assessment of requirements for funding and general market conditions. At the time any securities covered by the Shelf Prospectus are offered for sale, a prospectus supplement containing specific information regarding the terms of the securities being offered would be provided.

Shareholders' Equity

The authorized share capital of the Company consists of unlimited common shares without par value. All issued common shares are fully paid. All stock options, warrants, and RSUs/DSUs outstanding are each convertible into one common share of the Company. As at the MD&A Date, the Company's common share data was as follows:

	As at the MD&A Date	
	#	Weighted average exercise price $
Common shares issued and outstanding	111,266,777	n/a
Stock options outstanding	2,252,816	3.03
RSUs/DSUs outstanding	1,260,731	n/a
Warrants outstanding	-	-
Fully diluted	**114,780,324**	

In January 2024, the Company granted an aggregate of 1,566,686 stock options and RSUs to officers, employees, and consultants as follows:

- 200,000 stock options to an officer of the Company exercisable at $1.94 each for a period five years until January 19, 2029, which vest one-third annually to January 19, 2027;
- 743,948 stock options to officers of the Company exercisable at $1.91 each for a period seven years until January 23, 2031, of which 500,000 vested immediately and the remainder vest one-third annually to January 23, 2027; and
- 622,738 RSUs to officers, employees, and consultants of the Company which vest one-third annually to January 23, 2027.

In April 2024, 25,205 RSUs were exercised resulting in the issuance of an equivalent number of common shares, for $nil proceeds.

CONTRACTUAL OBLIGATIONS

As at March 31, 2024	Carrying amount $	Contractual cash flows $	Under 1 year $	1-5 years $	More than 5 years $
Accounts payable and accrued liabilities	3,658,935	3,658,935	3,658,935	-	-
Accounts payable to related parties	45,776	45,776	45,776	-	-
Lease liabilities	404,776	2,070,481	579,023	1,491,458	-
Total	**4,109,487**	**5,775,192**	**4,283,734**	**1,491,458**	**-**

SUMMARY OF QUARTERLY RESULTS

The following table shows the results for the last eight fiscal quarters as prepared in accordance with IFRS and presented in Canadian dollars, the functional currency of Nano One and its subsidiaries:

	2024	2023				2022		
	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2
Revenue	**-**	-	-	-	-	-	-	-
Loss from operating expenses	**(10,389,007)**	(9,013,580)	(7,581,520)	(8,088,571)	(8,484,363)	(5,430,296)	(2,407,926)	(4,538,130)
Cash used in operating activities	**(8,553,721)**	(9,036,487)	(6,921,232)	(8,303,093)	(2,798,241)	(575,888)	(2,144,738)	(2,913,619)
Cash used in investing activities	**(91,253)**	(1,919,234)	(1,720,180)	(193,687)	(333,592)	(6,181,208)	(31,419)	(10,401,701)
Cash (used in) provided by financing activities	**(130,575)**	16,822,700	240,178	2,829,193	3,757,172	265,459	184,030	12,498,233
Change in cash and cash equivalents	**(8,775,549)**	5,866,979	(8,401,234)	(5,667,587)	625,339	(6,491,637)	(1,992,127)	(817,087)
Cash from government grants[1]	**48,626**	13,666	884,300	29,448	3,366,331	102,362	1,913,055	68,483
Cash and cash equivalents	**23,093,333**	31,868,882	26,001,903	34,403,137	40,070,734	39,445,395	45,937,032	47,929,159
Working capital	**21,218,588**	30,135,235	22,067,827	30,049,580	35,726,607	40,588,090	45,802,797	47,455,543

[1] Cash from government grants is allocated between operating and investing activities within the financial statements.

There are no significant seasonal variations in quarterly results as we are not subject to significant seasonality in our operations. Overall, our cash and working capital positions have been well supported by private placements, equity exercises, and government grants over the fiscal quarters during 2023 and 2022. This is an achievement especially in the context of our growth.

- The increased operating expenses in Q1 2024 compared to Q4 2023 are attributable to the normal course increasing overheads as well as the commencement of the FEL 3 study during Q1 2024 which costs are captured as operating expenses. The primary driver of the increased quarterly operating expenses and cash used in operating and financing activities during 2023 compared to the 2022 quarters is the consolidation our Candiac subsidiary's operations for all fiscal quarters in 2023. Consolidation of its operations began part way through Q4 2022 (from November 1, 2022). Particularly from Q4 2022 onwards, the first fiscal quarter with subsidiary operations consolidated, our operating expenses have trended upwards. A significant portion of our operating expenses relates to research and operational expenses, and wages, benefits and fees, which are characterized by significant advancements in our research and innovation, patent portfolio, engineering/feasibility and other studies, as well as the growth of our personnel headcount as we fill key roles along our path towards commercialization.

- Cash used in operating activities is subject to fluctuation due to the timing and amounts received from government grants that are recognized through operating and/or investing activities. Cash used in operations during Q1 2024 reduced compared to Q4 2023 by approximately $483,000. Q4 2023 and Q3 2023 were particularly characterized by completing the conversion and commissioning of our 200 tpa LFP pilot plant within investing activities. In Q4 2022 and Q2 2022 investing activities included portions of the cash consideration paid for the acquisition of JMBM. Operating activities in Q1 2023 were relatively lower due to the SDTC proceeds received. Interest income increased in 2023 compared to 2022 and is included within investing activities.
- Investing activities in Q1 2024 were reduced as a result of easing the pace of expansion projects.
- Cash provided by financing activities includes proceeds received from equity financings including the Q4 2023 private placement with Sumitomo, and the Q2 2022 private placement with Rio Tinto. Amounts received in other quarters are attributable to exercises of stock options and warrants. Financing activities are partially offset by monthly payments for leased facilities which have increased as additional facilities were added in 2023 and 2022 along with certain lease renewals in 2023 that carry higher rates.
- The Sumitomo equity financing in Q4 2023 largely accounts for the variance in the change in cash and cash equivalents between Q1 2024 and Q4 2023 given the proceeds from the Sumitomo financing of approximately $17,000,000. When removing the Sumitomo proceeds the change in cash and cash equivalents for Q4 2023 would have been approximately $11,000,000 in cash used, which indicates a net reduction in cash used during Q1 2024 compared to Q4 2023.

TRANSACTIONS BETWEEN RELATED PARTIES

The following transactions were carried out with key management (gross amounts):

	Transactions three months ended March 31, 2024 $	Transactions three months ended March 31, 2023 $	**Balances outstanding March 31, 2024 $**	Balances outstanding December 31, 2023 $
Bedrock Capital	37,500	37,500	-	-
DBM CPA	7,500	57,500	-	11,550
Directors' fees	81,250	84,009	-	-
Management and directors' fees (within wages, benefits and fees)	126,250	179,009	-	11,550
Expense reimbursements (officer)	-	-	2,607	-
Wages, benefits and fees (officers) [(1)]	673,900	1,107,284	-	-
Share-based payments (directors and officers)	985,142	164,285	-	-
Patent Filing Specialists (professional and consulting; and intangible assets)	78,916	123,869	43,169	34,911
	1,864,208	1,574,447	**45,776**	46,461

(1) As at March 31, 2024, accounts payable and accrued liabilities included $180,326 in accrued short-term incentive compensation to key management relating to 2024 performance which is based on performance targets. Short-term incentive compensation is payable in cash annually during the first quarter of the fiscal year. During the three months ended March 31, 2024, there were no short-term incentive amounts paid to key management in relation to the year ended December 31, 2023. During the three months ended March 31, 2023, wages benefits and fees included $599,758 in amounts paid for short-term incentive compensation in relation to 2022.

Professional and consulting, net:

- Includes the services of Patent Filing Specialists Inc. (“Patent Filing Specialists”), a company controlled by Joseph Guy, a Company Director.

Wages, benefits and fees, net (including allocations to research and operational expenses, net):

- Includes salaries and short-term incentive cash-based compensation paid to Dan Blondal, CEO; Stephen Campbell, CTO; Alex Holmes, COO; Denis Geoffroy, Chief Commercialization Officer (CCO); Adam Johnson, Senior Vice-President of External Affairs; and Kelli Forster, Senior Vice-President of People & Culture.
- As of January 15, 2024, Pamela Kinsman, Corporate Secretary/Director of Sustainability resigned as Corporate Secretary and remains with the Company as Director of Sustainability.
- Leanne Swanson replaced Pamela Kinsman, as Corporate Secretary of the Company effective January 15, 2024.
- Includes the services of Bedrock Capital Corp. (“Bedrock Capital”) a company controlled by Paul Matysek the Executive Chairman and a Company Director.

- Includes the services of Donaldson Brohman Martin, CPA Inc. (“DBM CPA”) to January 15, 2024, a firm in which Dan Martino, former CFO, is a principal and has significant influence. On January 15, 2024, the Company announced the appointment of Carlo Valente as the new CFO. Dan Martino remains with the Company as Vice President of Finance provided services through DBM CPA. From January 15, 2024 to March 31, 2024, salaries and short-term incentive cash-based compensation paid or accrued for Carlo Valente are included within wages, benefits, and fees.
- Includes compensation to non-executive directors of the Company and committee chairpersons.

Share-based payments:

- Includes amounts recognized on vesting of stock options and Equity Incentives granted to directors and officers.
- During the three months ended March 31, 2024, the Company granted 175,435 RSUs to Company directors and officers.
- During the three months ended March 31, 2024, the Company granted 943,948 stock options to Company officers.

ACCOUNTING ESTIMATES, JUDGMENTS AND STANDARDS

The preparation of financial statements in conformity with IFRS requires management to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and reported amounts of income and expenses during each reporting period. Estimates and assumptions are continuously evaluated and are based on management’s experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. However, actual outcomes can differ from these estimates. Our material accounting policy information is detailed in Note 2 to the financial statements for the year ended December 31, 2023.

Key Estimates and Judgments

Fair value of equity incentives (stock options, restricted share units, deferred share units, performance share units) and compensatory warrants

Determining the fair value of stock options, and compensatory warrants for services or in relation to financings, requires estimates related to the choice of a pricing model, the estimation of stock price volatility, the fair value of the Company’s common shares, the expected forfeiture rate, and the expected term of the underlying instruments. Any changes in the estimates or inputs utilized to determine fair value could have a significant impact on the Company’s future operating results or on other components of shareholders’ equity.

Property, plant and equipment

The estimated useful lives of property, plant and equipment are reviewed by management and adjusted if necessary. To estimate property, plant and equipment’s useful life, management may use its past experience, review engineering estimates and/or appraisal reports, and industry practices for similar items of property, plant and equipment to assist in its determination of useful life. There have been no changes to the depreciation methods used by the Company during the three months ended March 31, 2024.

Research and operational expenses

The determination of whether expenditures on research and development activities meet the criteria for capitalization as internally generated intangible assets is subject to estimation and uncertainty. The Company has determined that until such time that it has a commercial-scale plant in the condition and location necessary to commence commercial production, that it will remain in the research phase (pre-commercial phase) and accordingly expenditures will be expensed within the Company’s results of operations.

The Company has determined that its activities continue to be classified as research in nature, as opposed to development. This results in research costs being expensed to profit or loss within the financial statements.

New Standards

Certain pronouncements have been issued by the IASB or IFRIC that are effective for accounting periods beginning on or after January 1, 2024. The Company has reviewed these updates and determined that none are applicable or consequential to the Company and have been excluded from discussion within the material accounting policy information.

In June 2023, the International Sustainability Standards Board (“ISSB”) issued the following IFRS Sustainability Disclosure Standards: *General Requirements for Disclosure of Sustainability-related Information* (IFRS S1); and *Climate-related Disclosure* (IFRS S2), which are effective for accounting periods beginning on or after January 1, 2024, but are not currently mandated in Canada. The Company will monitor the continued development of mandating these standards and the requisite disclosure requirements.

IFRS S1 sets out general reporting requirements for disclosing sustainability-related financial information. IFRS S2 requires an entity to disclose information about climate-related risks and opportunities and the impact on an entity's financial position, performance, cash flows, strategy, and business model.

CHANGE IN EXECUTIVE OFFICERS

Effective January 15, 2024, the Company announced the appointment of Carlo Valente as the new CFO. Dan Martino remains with the Company as Vice President of Finance providing services through DBM CPA. Additionally, Leanne Likness Swanson became the Company's Corporate Secretary, replacing Pamela Kinsman.

RISKS AND UNCERTAINTIES

Risk is inherent in all business activities and cannot be entirely eliminated. An investment in Nano One's common shares involves risk. Investors should carefully consider the risks and uncertainties described below, in the Company's AIF, the MD&A and audited financial statements and related notes thereto for the fiscal year ended December 31, 2023 and the Shelf Prospectus, filed with Canadian securities regulators and on our website which may not be a comprehensive list of risks and uncertainties. Additional risks and uncertainties, including those unknown by Nano One at this time, or are currently considered immaterial, may exist, and other risks may apply.

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.

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. The Company may be 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 pandemics, significant geopolitical risk and conflict globally may have a sizeable and unpredictable impact on the Company's business, financial condition and operations. The COVID-19 pandemic and the ongoing conflicts between Russia and Ukraine and between Hamas and Israel, 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 and between Hamas and Israel 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.

Risk Management

The ability to advance our strategic objectives depends on our ability to understand and appropriately respond to the uncertainties or business risks that may prevent us from achieving our objectives. To achieve this, we maintain a framework that permits us to manage risk effectively and integrate a process for managing risk into all our important decision-making processes so that we reduce the effect of uncertainty on achieving our objectives and maintain the oversight of relevant committees of the Board on the effectiveness of our risk management processes.

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 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.

DISCLOSURE CONTROLS AND PROCEDURES AND ICFR

In accordance with National Instrument 52—109 of the Canadian Securities Administrators (CSA), the Company has filed certificates signed by the Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO") that report on the design and effectiveness of disclosure controls and procedures ("DC&P") and the design and effectiveness of internal controls over financial reporting.

The Company's DC&P are designed to provide reasonable assurance that material information relating to the Company is made known to the CEO and CFO, particularly during the period in which the interim filings are being prepared, and information required to be disclosed by the Company in its annual and interim filings under Canadian securities legislation is recorded, processed, summarized, and reported within the time periods specified in securities legislation.

Additionally, the Company has designed internal controls over financial reporting or caused it to be designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

During the three months ended March 31, 2024 and the year ended December 31, 2023, there were no changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

RESPONSIBILITY FOR FINANCIAL STATEMENTS

Information provided in this MD&A and the financial statements is the responsibility of management. In the preparation of the financial statements, estimates are sometimes necessary to make a determination of the carrying value for certain assets or liabilities. Management believes such estimates have been based on careful judgments and have been properly reflected in the financial statements. Management maintains a system of internal controls to provide reasonable assurances that the Company's assets are safeguarded and to facilitate the preparation of relevant and timely information.

Nano One does not utilize off-balance sheet arrangements. There are no proposed transactions as at the MD&A Date.