

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 10-Q**

(Mark One)

**QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the quarterly period ended December 31, 2024**

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**Commission file number 001-42044**

**NANO NUCLEAR ENERGY INC.**

(Exact name of registrant as specified in its charter)

**Nevada**

(State or other jurisdiction of  
incorporation or organization)

**88-0861977**

(I.R.S. Employer  
Identification No.)

**10 Times Square, 30th Floor, New York, New York**

(Address of principal executive offices)

**10018**

(Zip Code)

**(212) 634-9206**

(Registrant's telephone number, including area code)

N/A

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of exchange on which registered
<b>Common stock, par value \$0.0001 per share</b>	<b>NNE</b>	<b>Nasdaq Capital Market</b>

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files.) Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer   
Non-accelerated filer

Accelerated filer   
Smaller reporting company   
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

As of February 12, 2025, there were 37,069,656 shares of the Company's common stock issued and outstanding.

NANO NUCLEAR ENERGY INC.  
Form 10-Q  
For the Quarter Ended December 31, 2024

TABLE OF CONTENTS

	<u>Page</u>
<a href="#"><u>Cautionary Note Regarding Forward-Looking Statements</u></a>	
<b><a href="#"><u>Part I. Financial Information</u></a></b>	1
Item 1. <a href="#"><u>Financial Statements</u></a>	1
<a href="#"><u>Condensed Consolidated Balance Sheets as of December 31, 2024 (Unaudited) and September 30, 2024</u></a>	1
<a href="#"><u>Unaudited Condensed Consolidated Statements of Operations for the Three Months Ended December 31, 2024 and 2023</u></a>	2
<a href="#"><u>Unaudited Condensed Consolidated Statements of Changes in Mezzanine Equity and Stockholders' Equity for the Three Months Ended December 31, 2024 and 2023</u></a>	3
<a href="#"><u>Unaudited Condensed Consolidated Statements of Cash Flows for the Three Months Ended December 31, 2024 and 2023</u></a>	4
<a href="#"><u>Notes to the Condensed Consolidated Financial Statements (Unaudited)</u></a>	5
Item 2. <a href="#"><u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u></a>	15
Item 3. <a href="#"><u>Quantitative and Qualitative Disclosures About Market Risk</u></a>	22
Item 4. <a href="#"><u>Controls and Procedures</u></a>	22
<b><a href="#"><u>Part II. Other Information</u></a></b>	23
Item 1. <a href="#"><u>Legal Proceedings</u></a>	23
Item 1A. <a href="#"><u>Risk Factors</u></a>	23
Item 2. <a href="#"><u>Unregistered Sales of Equity Securities and Use of Proceeds</u></a>	23
Item 3. <a href="#"><u>Defaults Upon Senior Securities</u></a>	23
Item 4. <a href="#"><u>Mine Safety Disclosures</u></a>	23
Item 5. <a href="#"><u>Other Information</u></a>	23
Item 6. <a href="#"><u>Exhibits</u></a>	23
<a href="#"><u>Signatures</u></a>	24

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q (this “Report”) contains “forward-looking statements” (as defined in Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) that reflect our current expectations and views of future events. The forward-looking statements are contained principally in the section of this Report entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Readers are cautioned that significant known and unknown risks, uncertainties and other important factors (including those over which we may have no control) and others listed in this Report, in the “*Item 1A. Risk Factors*” section of our Annual Report on Form 10-K for the fiscal year ended September 30, 2024 (“2024 Annual Report”), as filed with the Securities and Exchange Commission (the “SEC”) on December 30, 2024, and in our other filings with the SEC may cause our actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements.

You can identify these forward-looking statements by terms such as “anticipate,” “believe,” “continue,” “could,” “depends,” “estimate,” “expects,” “intend,” “may,” “ongoing,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would,” “assumption” or “judgment” or the negative of those terms or other similar expressions, although not all forward-looking statements contain those words.

These forward-looking statements present our estimates and assumptions only as of the date of this Report and are subject to several known and unknown risks, uncertainties, and assumptions. Accordingly, you are cautioned not to place undue reliance on forward-looking statements, which speak only as of the dates on which they are made. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, those challenges summarized below:

- Our ability to design, develop, manufacture, demonstrate, obtain regulatory approval for and ultimately sell our proposed micro nuclear reactors or other products, technologies or services we are developing.
- Our ability to develop a domestic Low Enriched Uranium (LEU) and High-Assay Low-Enriched Uranium (HALEU) fuel supply chain to supply the next generation of advanced nuclear reactors and our own systems.
- Our ability to produce a regulatorily licensed, high-capacity HALEU transportation package, capable of moving commercial quantities of HALEU fuel.
- Our ability to provide nuclear service support and consultation services for the expanding and resurgent nuclear energy industry, both domestically and internationally.
- Our ability to source, retain, and expand our technical and business staff to meet the demands of our expanding and diversifying business.
- Our ability to raise the substantial amount of additional funds that will be necessary for our business to succeed, which funds may not be available on acceptable terms or available at all.
- Assumptions relating to the size of the market for our micro nuclear reactors or other products, technologies or services we are developing.
- Unanticipated regulations of nuclear energy that add barriers to our business and have a negative effect on our operations.
- Our estimates of expenses, future revenue, capital requirements and our needs for, or ability to obtain, additional financing.
- Our status as an early-stage pre-revenue company in a rapidly evolving industry with a business model that still being developed and is largely untested.
- Our ability to avoid a significant disruption in our information technology system, including security breaches, or our ability to implement new system and software successfully.
- Our ability to obtain and maintain intellectual property protection for our products.
- The other forward-looking statements regarding our company and its prospects included in this Report including, without limitation, those under “Management’s Discussion and Analysis of Financial Condition and Results of Operations”, as such statements may be updated from time to time in our other filings with the SEC.

The foregoing does not represent an exhaustive list of matters that may be covered by the forward-looking statements contained herein or risk factors that we are faced with. Forward-looking statements necessarily involve significant risks and uncertainties, and our actual results could differ materially from those anticipated in the forward-looking statements due to a number of factors, including those set forth in our 2024 Annual Report and other SEC filings. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained above. Prior to investing in our common stock, you should read this Report, our 2024 Annual Report and other SEC filings completely and with the understanding that our actual future results may be materially different from what we currently expect. We qualify all of our forward-looking statements by these cautionary statements.

The forward-looking statements made in this Report relate only to events or information as of the date of this Report. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events.

**PART I - FINANCIAL INFORMATION**

**Item 1. Financial Statements.**

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**

**CONDENSED CONSOLIDATED BALANCE SHEETS**

	<b>December 31, 2024</b>	<b>September 30, 2024</b>
	<b>(Unaudited)</b>	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 123,267,673	\$ 28,507,257
Prepaid expenses	1,623,694	833,947
Deposits, current	3,560,000	-
Total current assets	128,451,367	29,341,204
Deposits, non-current	235,235	235,235
Property, plant and equipment, net	1,669,631	1,689,607
Right-of-use asset	1,786,206	1,830,124
Long-term investments, related party	2,000,000	2,000,000
Total assets	\$ 134,142,439	\$ 35,096,170
<b>LIABILITIES, MEZZANINE, AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 899,253	\$ 761,479
Due to related parties	-	25,000
Lease liability, current	322,870	281,352
Contingent consideration	1,294,750	770,500
Total current liabilities	2,516,873	1,838,331
Lease liability, non-current	1,568,530	1,650,383
Total liabilities	4,085,403	3,488,714
Stockholders' Equity		
Preferred stock, \$0.0001 par value; 25,000,000 authorized as of December 31, 2024 and September 30, 2024; none issued and outstanding as of December 31, 2024 and September 30, 2024	-	-
Common stock, \$0.0001 par value; 275,000,000 authorized as of December 31, 2024 and September 30, 2024; 36,742,099 and 30,715,663 shares issued and outstanding as of December 31, 2024 and September 30, 2024, respectively	3,675	3,072
Additional paid-in capital	150,600,504	49,038,165
Accumulated deficit	(20,547,143)	(17,433,781)
Total stockholders' equity	130,057,036	31,607,456
Total liabilities and stockholders' equity	\$ 134,142,439	\$ 35,096,170

The accompanying notes are an integral part of these condensed consolidated financial statements.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
(Unaudited)

	<b>Three Months Ended</b>	
	<b>December 31, 2024</b>	<b>December 31, 2023</b>
<b>Operating expenses</b>		
General and administrative	\$ 2,494,570	\$ 828,896
Research and development	904,923	520,016
Change in Fair Value of contingent consideration	524,250	-
<b>Loss from operations</b>	<b>3,923,743</b>	<b>1,348,912</b>
Other income	810,381	34,967
<b>Net loss</b>	<b>\$ (3,113,362)</b>	<b>\$ (1,313,945)</b>
<b>Net loss per share of common stock:</b>		
Basic	\$ (0.09)	\$ (0.06)
Diluted	\$ (0.09)	\$ (0.06)
<b>Weighted-average shares of common stock outstanding:</b>		
Basic	33,964,495	23,184,869
Diluted	33,964,495	23,184,869

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN  
MEZZANINE EQUITY AND STOCKHOLDERS' EQUITY  
(Unaudited)

For the Three Months Ended December 31, 2024

	Common shares	Amount	Additional paid-in capital	Accumulated deficit	Total stockholders' equity
Balance as of September 30, 2024	30,715,663	\$ 3,072	\$ 49,038,165	\$ (17,433,781)	\$ 31,607,456
Common stock issuances	4,935,294	494	101,399,518	-	101,400,012
Offering costs	-	-	(9,058,856)	-	(9,058,856)
Exercise of warrants	601,142	60	8,014,226	-	8,014,286
Exercise of stock options	490,000	49	1,207,451	-	1,207,500
Net loss	-	-	-	(3,113,362)	(3,113,362)
Balance as of December 31, 2024	36,742,099	\$ 3,675	\$ 150,600,504	\$ (20,547,143)	\$ 130,057,036

For the Three Months Ended December 31, 2023

	Mezzanine Equity		Permanent Equity				Total stockholders' equity	
	Shares	Amount	Shares	Amount	Stock subscriptions	Additional paid-in capital		Accumulated deficit
Balance as of September 30, 2023	2,000,000	\$ 5,000,000	23,184,869	\$ 2,319	\$ -	\$ 9,288,553	\$ (7,282,225)	\$ 2,008,647
Stock subscriptions	-	-	-	-	2,106,437	-	-	2,106,437
Net loss	-	-	-	-	-	-	(1,313,945)	(1,313,945)
Balance as of December 31, 2023	2,000,000	\$ 5,000,000	23,184,869	\$ 2,319	\$ 2,106,437	\$ 9,288,553	\$ (8,596,170)	\$ 2,801,139

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements

NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(Unaudited)

	For the Three Months Ended December 31, 2024	For the Three Months Ended December 31, 2023
<b>OPERATING ACTIVITIES</b>		
<b>Net loss</b>	\$ (3,113,362)	\$ (1,313,945)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of right-of-use asset	43,918	-
Depreciation	19,976	-
Change in assets and liabilities:		
Prepaid expenses	(789,747)	(11,089)
Accounts payable and accrued liabilities	137,774	208,301
Due to related parties	(25,000)	10,000
Lease liability	(40,335)	-
Contingent liability	524,250	-
<b>Net cash used in operating activities</b>	<u>(3,242,526)</u>	<u>(1,106,733)</u>
<b>INVESTING ACTIVITIES</b>		
Deposits, current	(3,560,000)	-
<b>Net cash used in investing activities</b>	<u>(3,560,000)</u>	<u>-</u>
<b>FINANCING ACTIVITIES</b>		
Proceeds from common stock issuances	101,400,012	-
Offering costs	(9,058,856)	-
Proceeds from exercise of warrants	8,014,286	-
Proceeds from exercise of stock options	1,207,500	-
Proceeds from stock subscriptions	-	2,106,437
Payment of deferred offering costs	-	(55,000)
<b>Net cash provided by financing activities</b>	<u>101,562,942</u>	<u>2,051,437</u>
<b>Net increase in cash</b>	94,760,416	944,704
Cash and cash equivalents, beginning of period	28,507,257	6,952,795
Cash and cash equivalents, end of period	<u>\$ 123,267,673</u>	<u>\$ 7,897,499</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**  
**(Unaudited)**

**1. ORGANIZATION AND OPERATIONS AND BASIS OF PRESENTATION**

NANO Nuclear Energy Inc. (“NANO” or the “Company”) was incorporated under the laws of the state of Nevada on February 8, 2022 (“Inception”) and is headquartered in New York, New York. The Company is an early-stage, pre-revenue nuclear energy company developing smaller, cheaper, and safer advanced portable clean energy solutions utilizing advanced proprietary reactor designs, intellectual property and research methods.

The Company’s on-demand capable, advanced nuclear microreactors currently in development are (i) **ZEUS**, a portable solid core battery reactor, (ii) **ODIN**, a portable low-pressure coolant reactor, (iii) the fixed installation **KRONOS MMR™ Energy System** and (iv) the space focused, portable **LOKI MMR™**. The Company envisions readily replaceable microreactors which it can provide to customers in several sectors, including data centers, artificial intelligence computer and quantum computing; crypto mining; military applications; disaster relief; transportation (including shipping); mining projects; water desalination and green hydrogen plants; and space exploration. The KRONOS and LOKI designs and related intellectual property and other assets were acquired subsequent to the period covered by this Report (see Note 9 for further information).

Through its subsidiary, HALEU Energy Fuel Inc., the Company is also developing a domestic High-Assay Low-Enriched Uranium (“HALEU”) fuel processing facility with a capability to provide a fuel pipeline for the broader advanced nuclear reactor industry and providing fuel to power the Company’s microreactors. Further, through its subsidiary Advanced Fuel Transportation Inc., the Company is developing a high-capacity HALEU transportation product, capable of moving commercial quantities of HALEU fuel around North America. Through its subsidiary Nano Nuclear Space Inc., the Company is seeking to explore the potential commercial applications of our developing micronuclear reactor technology in space. The Company also plans to offer nuclear service support and consultation services.

These unaudited condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries American Uranium Inc., HALEU Energy Fuel Inc., Advanced Fuel Transportation Inc., Nano Nuclear Space Inc., KRONOS MMR Inc., and LOKI MMR Inc. Each of such subsidiaries is a Nevada corporation.

As used herein, the term “Common Stock” refers to the common stock, \$0.0001 par value per share, of the Company.

***Liquidity***

These unaudited condensed consolidated financial statements have been prepared on a going concern basis, which assumes the realization of assets and settlement of liabilities in the normal course of business. At December 31, 2024, the Company had working capital of \$125,934,494 and accumulated deficit of \$20,547,143. For the three months ended December 31, 2024, the Company had net loss of \$3,113,362, and negative cash flows from operations of \$3,242,526. At September 30, 2024, the Company had working capital of \$27,502,873 and accumulated deficit of \$17,433,781. For the year ended September 30, 2024, the Company had net loss of \$10,151,556, and negative cash flows from operations of \$8,464,146. The ability of the Company to continue as a going concern is dependent on the Company’s ability to secure financing from capital markets or other sources, including investors, loans, government grants or alternative funding and, ultimately, on the Company’s ability to generate revenue and profitable operations. Management is of the opinion that sufficient working capital is available to meet the Company’s liabilities and commitments as they come due at least for the next twelve months after the date the unaudited condensed consolidated financial statements are issued to conform to the going concern uncertainty period. During the three month period ended December 31, 2024, the Company received approximately \$8.0 million from exercises of warrants, \$1.2 million from exercises of stock options, and net proceeds of approximately \$92.3 million from the Company’s registered follow-on offering in October 2024, and its November 2024 private placement offering (see Note 5). In order to achieve the Company’s long-term strategy, the Company expects to raise additional capital or secure other sources of financing to support its growth.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

***Basis of Presentation***

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. GAAP for interim financial reporting and the rules and regulations of the Securities and Exchange Commission (“SEC”). References to ASC and ASU included herein refer to the Accounting Standards Codification and Accounting Standards Update established by the Financial Accounting Standards Board (“FASB”) as the source of authoritative U.S. GAAP. All intercompany balances and transactions have been eliminated in consolidation.

In management’s opinion, the unaudited condensed consolidated financial statements have been prepared on the same basis as the Company’s annual audited consolidated financial statements. They include all adjustments, consisting of only normal recurring adjustments, necessary for the fair statement of the Company’s financial position as of December 31, 2024, and its results of operations for the three months ended December 31, 2024 and 2023 and cash flows for the three months ended December 31, 2024 and 2023. The results for the three months ended December 31, 2024 are not necessarily indicative of the results expected for the year or any other periods. The condensed consolidated balance sheet as of September 30, 2024 has been derived from the Company’s audited consolidated financial statements.

***Cash and Cash Equivalents***

The Company considers all highly liquid investments with original maturities of three months or less at the time of purchase to be cash equivalents. Cash equivalents are stated at cost, which approximates market value, because of the short maturity of these instruments.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**  
**(Unaudited)**

***Use of Estimates***

The preparation of unaudited condensed consolidated financial statements in conformity with GAAP requires management to make certain estimates, judgments and assumptions. The Company believes that the estimates, judgments and assumptions made when accounting for items and matters such as, but not limited to, equity-based compensation and contingencies are reasonable, based on information available at the time they are made. These estimates, judgments and assumptions can affect the reported amounts of assets and liabilities as of the date of the unaudited condensed consolidated financial statements, as well as amounts reported on the statements of operations during the periods presented. Actual results could differ from those estimates.

***Fair Value Measurement***

The Company measures certain financial assets and liabilities at fair value. Fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the Company uses a three-level hierarchy, which prioritizes fair value measurements based on the types of inputs used for the various valuation techniques (market approach, income approach and cost approach). The levels of hierarchy are described below:

Level 1 – Quoted prices in active markets for identical instruments.

Level 2 – Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.

Level 3 – Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the asset or liability. Financial assets and liabilities are classified in their entirety based on the most stringent level of input that is significant to the fair value measurement. The carrying amount of certain financial instruments, including prepaid expenses and accounts payable approximates fair value due to their short maturities.

***Concentration of Credit Risk***

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents. The Company maintains its cash balances at a financial institution and such amounts exceeded federally insured limits at December 31, 2024 and September 30, 2024. Any loss incurred or a lack of access to such funds could have a significant adverse impact on the Company's financial condition, results of operations, and cash flows.

***Prepaid Expenses***

Prepaid expenses primarily relate to payments made to consultants and vendors in advance of the service being provided.

***Property, Plant and Equipment***

Property, plant and equipment are measured at cost less accumulated depreciation and impairment charges. When components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment and depreciated separately. Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognized in earnings.

***Depreciation***

Depreciation is calculated over the depreciable amount, which is the cost of the asset less its residual value. Depreciation methods, useful lives and residual values are reviewed at each reporting period and are adjusted if appropriate. Assets are depreciated according to the straight-line method based on estimated useful lives as follows:

Land	Not depreciated
Buildings	20 years

***Leases***

The Company recognizes right-of-use (ROU) assets and lease liabilities for leases with terms greater than 12 months. Leases are classified as either finance or operating leases. This classification dictates whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. As of December 31, 2024, the Company had one long-term operating lease. As of September 30, 2024, the Company had one long-term operating lease.

Long-term leases (leases with initial terms greater than 12 months) are capitalized at the present value of the minimum lease payments not yet paid. The Company uses its incremental borrowing rate to determine the present value of the lease when the rate implicit in the lease is not readily determinable. Short-term leases (leases with an initial term of 12 months or less or leases that are cancelable by the lessee and lessor without significant penalties) are not capitalized but are expensed on a straight-line basis over the lease term.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**  
**(Unaudited)**

***Warrant Instruments***

The Company accounts for warrants issued in connection with the private placement in accordance with the guidance contained in FASB ASC Topic 815, “Derivatives and Hedging”. Accordingly, the Company evaluated and classified the warrant instruments under equity treatment at their assigned values.

***Investments in Equity – Related Party***

The Company accounts for investments in equity that are within the scope of ASC 321-10, Investments - Equity Securities (“ASC 321-10”), as either (1) investments with a readily determinable fair value, which are recorded at fair value or (2) investments without a readily determinable fair value, which are recorded at cost less any impairment. Equity investments that are initially concluded to not have a readily determinable fair value are reassessed at each reporting period. If the Company identifies observable price changes in orderly transactions for the identical or a similar investment of the same issuer, it measures the equity security at fair value as of the date that the observable transaction occurred using valuation techniques that are permitted under ASC 820, Fair Value Measurement.

As of December 31, 2024 and September 30, 2024, the Company had investments in equity of \$2.0 million, representing the Company’s equity investment in LIST (see Note 8). The equity investments were accounted for in accordance with ASC 321-10, and the Company accounted for the equity investments at cost less impairment because there were no readily determinable fair values for these investments as of December 31, 2024. No impairment was recorded during the three month period ended December 31, 2024. The investments were recognized as other assets on the Company’s consolidated balance sheets.

***Mezzanine Equity***

The Company recognized a tranche of shares of Common Stock as mezzanine equity since such shares were redeemable at the option of the holder, but not mandatorily redeemable. On March 30, 2024, the Company amended its subscription agreement with the holder of such shares to terminate the redemption right, which resulted in a conversion of such shares from mezzanine equity to stockholders’ equity. See Note 5 for further information.

***Equity-Based Compensation***

Equity-based compensation is measured using a fair value-based method for all equity-based awards. The cost of awarded equity instruments is recognized based on each instrument’s grant-date fair value over the period during which the award vests. Equity-based compensation is recorded as either a general and administrative expense or a research and development expense in the condensed consolidated statements of operations.

***Research and Development***

Research and development expenses represent costs incurred for designing and engineering products, including the costs of developing design tools, as well as the costs to acquire technology and other assets from third parties. All research and development costs related to product development are expensed as incurred.

***Advertising Costs***

Advertising costs are expensed as incurred and are recognized as a component of general and administrative expenses on the condensed unaudited consolidated statements of operations. Advertising costs expensed were \$93,501 and \$173,800, respectively, for the three months ended December 31, 2024, and 2023.

***Legal Contingencies***

The Company is presently involved in two stockholder-initiated legal proceedings. Given the relatively early pleading stage of these proceedings, the Company cannot reasonably estimate the amount of any potential financial loss or cost that could result from these legal proceedings. The Company records liabilities for losses from legal proceedings when it determines that it is probable that the outcome in a legal proceeding will be unfavorable, and the amount of loss can be reasonably estimated.

***Income Taxes***

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets, including tax loss and credit carry forwards, and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is recorded when it is “more likely-than-not” that deferred tax assets will not be realized. On a regular basis, the Company evaluates the recoverability of deferred tax assets and the need for a valuation allowance. Such evaluations involve the application of significant judgment. The Company considers multiple factors in its evaluation of the need for a valuation allowance. The Company’s net deferred tax assets consist primarily of assets related to net operating losses. The Company’s net operating losses and credits have an indefinite life for federal net operating losses (“NOLs”) generated through December 31, 2024. At December 31, 2024 and September 30, 2024, the Company recorded a full valuation allowance on its deferred tax assets in the amount of approximately \$6,329,000 and \$5,675,000, respectively. The effective tax rate was 0.0% for the three months ended December 31, 2024 and 2023. The Company’s effective tax rate for the three months ended December 31, 2024 and 2023 differs from the federal statutory rate of 21% primarily due to a full valuation allowance against its net deferred tax assets where it is more likely than not that the deferred tax assets will not be realized.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**  
**(Unaudited)**

Until an appropriate level of profitability is attained, the Company expects to maintain a full valuation allowance on its deferred tax assets. Any tax benefits or tax expense recorded on its consolidated statements of operations will be offset with a corresponding valuation allowance until such time that the Company changes its determination related to the realization of deferred tax assets. In the event that the Company changes its determination as to the amount of deferred tax assets that can be realized, the Company will adjust its valuation allowance with a corresponding impact to the provision for income taxes in the period in which such a determination is made. For uncertain tax positions that meet a “more likely-than-not” threshold, the Company recognizes the benefit of uncertain tax positions in the unaudited condensed consolidated financial statements. The Company’s practice is to recognize interest and penalties, if any, related to uncertain tax positions in income tax expense in the consolidated statements of operations. All of the Company’s historical tax returns remain subject to examination by taxing jurisdictions. At December 31, 2024 and September 30, 2024, the Company does not believe it has any uncertain tax positions that would require either recognition or disclosure in the accompanying unaudited condensed consolidated financial statements.

***Net Loss per Share***

Basic net income (loss) per share is computed by dividing net income (loss) attributable to the Company by the weighted average number of shares of Common Stock outstanding during the period. Diluted net income (loss) per share is computed based on the weighted average number of shares of Common Stock outstanding plus the effect of dilutive potential shares of Common Stock outstanding during the period. During the periods when there is a net loss, potentially dilutive shares of Common Stock are excluded from the calculation of diluted net loss per share as their effect is anti-dilutive. During the three months ended December 31, 2024 and 2023, there were no dilutive shares issued or outstanding.

***Operating Segments***

For the three months ended December 31, 2024 and 2023, the Company was managed as a single operating segment in accordance with the provisions in the Financial Accounting Standards Board (“FASB”) guidance on segment reporting, which establishes standards for, and requires disclosure of, certain financial information related to reportable operating segments and geographic regions. Furthermore, the Company determined that the Company’s Chairman and President is the Chief Operating Decision Maker as he is responsible for making decisions regarding the allocation of resources and assessing performance as well as for strategic operational decisions and managing the organization as a whole.

***Recent Accounting Pronouncements***

The Company considers the applicability and impact of all Accounting Standards Updates issued by the FASB. In November 2024, the FASB issued ASU 2024-03, “Income Statement-Reporting Comprehensive Income-Expense Disaggregation Disclosures” (“ASU 2024-03”). ASU 2024-03 requires disclosure in the notes to the financial statements of specified information about certain costs and expenses. ASU 2024-03 is effective for fiscal years beginning after December 15, 2026, and for interim periods within fiscal years beginning after December 15, 2027. ASU 2024-03 should be applied either prospectively to financial statements issued for reporting periods after the effective date of this ASU or retrospectively to any or all prior periods presented in the financial statements. The Company is currently evaluating the impact of ASU 2024-03 on its disclosures. There are no other accounting pronouncements which have been issued but are not yet effective that would have a material impact on our current unaudited condensed consolidated financial statements.

**3. OTHER INCOME**

During the three months ended December 31, 2024, the Company earned interest income of \$789,381 on its cash held at a financial institution and earned \$21,000 from a lease agreement (Note 8). During the three months ended December 31, 2023, the Company earned interest income of \$34,967.

**4. RELATED PARTIES**

At December 31, 2024 and September 30, 2024, the Company had amounts due to related parties of \$0 and \$25,000, respectively. The amounts due at September 30, 2024 corresponded to unpaid amounts due to officers and directors for services rendered during the year ended September 30, 2024. The aggregate compensation paid, or payable, to officers and directors during the three months ended December 31, 2024 and 2023 were \$283,000 and \$185,000, respectively, which were included in the accompanying unaudited condensed consolidated statements of operations under general and administrative expenses.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**  
**(Unaudited)**

## **5. EQUITY**

The Company is authorized to issue 275,000,000 shares of Common Stock and 25,000,000 shares of preferred stock, with a par value of \$0.0001 per share. No shares of preferred stock were outstanding during the periods presented. Holders of Common Stock are entitled to one vote per share.

### ***Issuance of Common Stock for Cash***

#### ***Series B Round***

The Company's fourth round of private financing (the "Series B Round") began in December 2023 and ended in January 2024. As of December 31, 2023, the Company received \$2,106,437 in subscriptions as part of the Series B Round, and in January 2024, the Company received \$360,000 in subscriptions. In January 2024, the Company sold and issued 822,144 shares of Common Stock at a price of \$3.00 per share for gross proceeds of \$2,466,437 to close the Series B Round.

#### ***Initial Public Offering (IPO)***

On May 7, 2024, the Company consummated a firm commitment underwritten initial public offering (the "IPO Offering") of an aggregate of 2,562,500 shares of Common Stock at a price of \$4.00 per share (the "IPO Offering Price"), generating gross proceeds of \$10,250,000, and net proceeds (after deducting discounts and offering expenses) of approximately \$9.0 million. In connection with the IPO Offering, the Company granted the lead managing underwriter an option (the "IPO Over-Allotment Option"), exercisable for 30 days from May 7, 2024, to purchase up to an additional 384,375 shares of Common Stock (the "IPO Over-allotment Shares") from the Company at the Offering Price, less the underwriting discount, to cover over-allotments in the Offering.

On May 21, 2024, the underwriter exercised the IPO Over-Allotment Option in full, and on May 22, 2024, the closing of the purchase of the IPO Over-Allotment Shares occurred, generating gross proceeds to the Company of \$1,537,500 and net proceeds of approximately \$1.4 million. In connection with the IPO Offering, the Company also issued such lead managing underwriter 179,375 warrants exercisable for 179,375 shares of Common Stock at an exercise price per share of \$5.00 with expiry on May 10, 2029. In connection with the IPO Offering and IPO Over-Allotment Option, the Company charged issuance costs of \$1,538,405 to additional paid-in capital during the year ended September 30, 2024.

#### ***July 2024 Firm Commitment Public Offering***

On July 15, 2024, the Company consummated a firm commitment underwritten follow-on public offering (the "July 2024 Follow-on Offering") of an aggregate of 900,000 units, consisting of an aggregate of 900,000 shares of Common Stock and 900,000 warrants to purchase up to 450,000 shares of Common Stock (the "July 2024 Follow-on Warrants") based on an offering price of \$20.00 per unit (the "July 2024 Follow-on Offering Price"), generating gross proceeds of \$18 million, and net proceeds (after deducting discounts and offering expenses) of approximately \$16.1 million. In connection with the July 2024 Follow-on Offering, the Company granted the lead managing underwriter an option ("July 2024 Follow-on Over-allotment Option"), exercisable for 30 days from July 15, 2024, to purchase up to an additional 135,000 shares of Common Stock (the "July 2024 Follow-on Over-allotment Shares") and 135,000 warrants to purchase 67,500 shares of Common Stock (the "July 2024 Follow-on Over-allotment Warrants") from the Company at the July 2024 Follow-on Offering Price, less underwriting discounts and other July 2024 Follow-on Offering expenses, to cover over-allotments in the July 2024 Follow-on Offering. On July 12, 2024, the underwriter exercised the July 2024 Follow-on Over-allotment Option in full with respect to the July 2024 Follow-on Over-allotment Warrants, which closed on July 15, 2024 for nominal consideration.

On July 16, 2024, the underwriter exercised the July 2024 Follow-on Over-allotment Option in full, and on July 18, 2024, the closing of the purchase of the July 2024 Follow-on Over-Allotment Shares occurred, generating gross proceeds to the Company of approximately \$2.7 million and net proceeds of approximately \$2.5 million. In connection with the July 2024 Follow-on Offering, the Company also issued such lead managing underwriter 63,000 warrants exercisable for 63,000 shares of Common Stock at an exercise price per share of \$25.00 with expiry on July 15, 2029. In connection with the July 2024 Follow-on Offering and July 2024 Follow-on Over-allotment Option, the Company charged issuance costs of \$2,091,424 to additional paid-in capital during the year ended September 30, 2024.

#### ***October 2024 Firm Commitment Public Offering***

On October 23, 2024, the Company consummated a firm commitment underwritten follow-on public offering (the "October 2024 Follow-on Offering") of an aggregate of 2,117,646 units, consisting of an aggregate of 2,117,646 shares of Common Stock and 2,117,646 warrants to purchase up to 1,058,823 shares of Common Stock (the "October 2024 Follow-on Warrants") based on an offering price of \$17.00 per unit (the "October 2024 Follow-on Offering Price"), generating gross proceeds of approximately \$36 million, and net proceeds (after deducting discounts and offering expenses) of approximately \$32.3 million. In connection with the October 2024 Follow-on Offering, the Company granted the lead managing underwriter an option ("October 2024 Follow-on Over-allotment Option"), exercisable for 30 days from October 25, 2024, to purchase up to an additional 317,646 shares of Common Stock (the "October 2024 Follow-on Over-allotment Shares") and 317,646 warrants to purchase 158,823 shares of Common Stock (the "October 2024 Follow-on Over-allotment Warrants") from the Company at the October 2024 Follow-on Offering Price, less underwriting discounts and other October 2024 Follow-on Offering expenses, to cover over-allotments in the October 2024 Follow-on Offering. On October 23, 2024, the underwriter partially exercised the October 2024 Follow-on Over-allotment Option for the October 2024 Follow-on Over-allotment Warrants (which option closed on October 25, 2024 for nominal consideration). On October 28, 2024, the lead underwriter exercised the October 2024 Follow-on Over-allotment Option in full with respect to the October 2024 Follow-on Over-allotment Shares, and on October 29, 2024, the closing of the purchase of the October 2024 Follow-on Over-Allotment Shares occurred, generating gross proceeds to the Company of approximately \$5.4 million and net proceeds of approximately \$4.9 million. In connection with the October 2024 Follow-on Offering, the Company issued such lead managing underwriter 105,882 warrants exercisable for 105,882 shares of Common Stock at an exercise price per share of \$21.25 with expiry on October 29, 2029. In connection with the October 2024 Follow-on Over-allotment Option, the Company also issued such lead managing underwriter 15,882 warrants exercisable for 15,882 shares of Common Stock at an exercise price per share of \$21.25 with expiry on October 29, 2029.

On November 24, 2024, the Company, entered into a Securities Purchase Agreement (the “November 2024 SPA”) with three accredited institutional investors (the “Investors”), pursuant to which the Company agreed to offer and sell an aggregate of \$60,000,048 of securities of the Company in a private placement (the “November 2024 Private Placement”), consisting of (i) 2,500,002 shares (“PIPE Shares”) of Common Stock of the Company and (ii) warrants to purchase up to 2,500,002 shares of Common Stock (the “PIPE Warrants”). The November 2024 Private Placement closed on November 27, 2024. After deducting the placement agent fees and estimated offering expenses payable by the Company, the Company received net proceeds of approximately \$55,122,000. The Company intends to use these net proceeds for general working capital and general corporate purposes, which could include potential acquisitions of complementary businesses or assets. Pursuant to the November 2024 SPA, the Company issued and sold in the Private Placement the PIPE Shares and associated PIPE Warrants at a combined purchase price of \$24.00 per share. The PIPE Warrants have a term of five (5) year with an exercise price of \$26.00 per share and will be exercisable immediately upon issuance of the PIPE Warrants. On November 24, 2024, in connection with the Private Placement, the Company entered into a registration rights agreement with the Investors (the “Registration Rights Agreement”), pursuant to which the Company agreed to file a registration statement with the Securities and Exchange Commission (the “SEC”) covering the resale of the PIPE Shares and the shares of Common Stock issuable upon exercise of the PIPE Warrants by no later than January 15, 2025 (the date of filing, the “Filing Date”), with such registration statement to be effective within 30 days of the Filing Date (if such registration statement is not subject to review by the SEC), or within 60 days after the Filing Date (if such registration statement is subject to limited or full review by the SEC). The Company filed a registration statement covering the resale of these securities, which was declared effective on January 24, 2025. The Investors are also entitled (subject to certain exceptions) to customary piggyback registration rights during the period in which the registration statement is effective. The Company is subject to customary requirements to pay liquidated damages to the Investors in the event it does not meet certain filing and effectiveness deadlines set forth in the Registration Rights Agreement in an amount equal to 1% of each Investor’s subscription amount, plus interest, as applicable, on a monthly basis until such event giving rise to the liquidated damages is cured. The Benchmark Company, LLC acted as placement agent for the Private Placement and received a cash fee equal to 6.0% of the gross proceeds received by the Company in the Private Placement, a non-accountable expense allowance equal to 1% of the gross proceeds received by the Company from the Private Placement, and reimbursement of up to \$175,000 in legal expenses.

### ***Mezzanine Equity***

Pursuant to the terms of a subscription agreement (the “Put Right Subscription Agreement”) signed by the Company during the year ended September 30, 2023 as part of the Series A Round, a subscriber (the “Subscriber”) purchased 2,000,000 shares of Common Stock (the “Put Shares”) for \$2.50 per share or \$5,000,000 (the “Purchase Price”). The Put Right Subscription Agreement included a right (the “Put Right”) which entitled the Subscriber to elect to sell to the Company any part or all of the Put Shares acquired if: (a) the Company’s initial public offering registration statement (“IPO Registration Statement”) was not declared effective by the SEC by December 31, 2023; (b) the Company committed a material breach of the Agreement and either that breach was not capable of being remedied or, if capable of remedy, the Company did not remedy that breach as soon as possible and in any event within 30 business days of its receipt of a notice from the Subscriber requiring the Company to remedy that breach.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**  
**(Unaudited)**

ASC 480-10-S99-3A provides guidance on the classification and measurement of redeemable securities, which requires classification in temporary equity of securities redeemable for cash or other assets if they are redeemable under certain conditions. One of these conditions is the occurrence of an event that is not solely within the control of the issuer. This condition was applicable up to March 30, 2024, as the Subscriber could have exercised the Put Option and required the Company to redeem the Put Shares since the IPO Registration Statement was not declared effective by the SEC by December 31, 2023. This process involved a significant number of third parties and the SEC's declaration of effectiveness was ultimately within the SEC's control. Therefore, this contingently redeemable feature was not considered to be within the control of the Company and was classified within Mezzanine Equity on the balance sheet at December 31, 2023. On March 30, 2024, the Subscriber terminated the Put Option at the request of the Company and the amount within Mezzanine Equity was converted to Stockholders' Equity.

***Equity-Based Compensation***

*Issuance of Common Stock for Consulting fees*

During the year ended September 30, 2024, the Company issued to two consultants an aggregate of 20,000 shares of Common Stock with an aggregate fair value of \$167,800, which represents equity-based compensation and is recorded within general and administrative expenses.

*Stock Based Compensation*

On February 10, 2023, and on June 7, 2023, the Company adopted two distinct stock option plans which are referred to individually, as the 2023 Stock Option Plan #1 and the 2023 Stock Option Plan #2 (collectively, the "2023 Stock Option Plans"). There are no shares available for grant under the 2023 Stock Option Plan #1, and the maximum number of shares available under the plan may increase on an annual basis on the anniversary date of this option plan if the total number of stock options issued under the 2023 Stock Option Plans is less than 15% of the number of issued shares of Common Stock. There are 1,364,315 shares of Common Stock available for grant under the 2023 Stock Option Plan #2, and the maximum number of shares available under the plan may increase on a quarterly basis if the total number of stock options issued under the 2023 Stock Option Plans is less than 15% of the number of issued shares of Common Stock. The plans are otherwise substantially similar in their substance.

During the year ended September 30, 2024, the Company issued 125,000 fully vested stock options exercisable at \$3.00 per common share with expiry on March 13, 2027. The 125,000 options were valued at \$152,457 based on a Black-Scholes valuation with the following assumptions (Risk-free interest rate: 4.37%; expected life of options: 1.5 years; estimated volatility: 82.5%; dividend rate: 0%).

During the year ended September 30, 2024, the Company's assumptions utilized in the Black-Scholes valuation were the following: (1) stock price based on recent sales of Common Stock to unrelated parties; (2) estimated the volatility of its underlying stock by using an average of the historical volatility of a group of comparable publicly traded companies; (3) expected dividend yield was calculated using historical dividend amounts; (4) risk-free rate is based on the United States Treasury yield curve in effect at the time of the grant; (5) expected term was estimated based on the vesting and contractual term of the stock option grant.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**  
**(Unaudited)**

The weighted average grant date fair value of stock options issued during the year ended September 30, 2024 was \$1.22 per share. There was no remaining stock compensation expense to be recognized at September 30, 2024 as all options vested immediately upon grant. There was no stock based compensation during the three months ended December 31, 2024.

**Option Activity**

A summary of cumulative option activity under the 2023 Stock Option Plans is as follows:

	<b>Options outstanding</b>			
	<b>Number of shares</b>	<b>Weighted average exercise price per share</b>	<b>Weighted average contractual term (in years)</b>	<b>Aggregate intrinsic value (in thousands)</b>
Outstanding – September 30, 2023	4,007,000	\$ 2.23	2.54	\$ 2,004
Options granted	125,000	3.00	2.71	152
Options exercised	(593,000)	1.76	—	—
Outstanding – September 30, 2024	3,539,000	\$ 2.34	1.59	\$ 2,156
Options exercised	(490,000)	\$ 2.46	—	\$ —
Outstanding – December 31, 2024	3,049,000	\$ 2.32	1.33	\$ 2,156
Vested during the period	-	\$ -	-	\$ -
Vested at end of period	-	\$ -	-	\$ -
Exercisable at the end of period	3,049,000	\$ 2.32	1.33	\$ 2,156

**Warrant Activity**

A summary of cumulative warrant activity is as follows:

	<b>Warrant Shares outstanding</b>		
	<b>Number of shares</b>	<b>Weighted average exercise price per share</b>	<b>Weighted average contractual term (in years)</b>
Outstanding – September 30, 2023	-	\$ -	-
Warrants issued	881,639	17.48	5.00
Warrants exercised	(63,775)	20.00	-
Outstanding – September 30, 2024	817,864	\$ 17.28	4.79
Warrants issued	3,717,648	23.05	5.00
Warrants exercised	(639,033)	\$ 13.94	-
Outstanding – December 31, 2024	3,896,477	\$ 23.33	4.84

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**  
**(Unaudited)**

**6. PROPERTY, PLANT AND EQUIPMENT, RIGHT-OF-USE ASSET & LEASE LIABILITY**

	<u>December 31, 2024</u>	<u>September 30, 2024</u>
	<u>Land and buildings</u>	<u>Land and buildings</u>
<b>Cost</b>		
Beginning of period	\$ 1,700,000	\$ -
Additions – land	-	115,000
Additions – building	-	1,585,000
End of period	<u>1,700,000</u>	<u>1,700,000</u>
<b>Accumulated depreciation</b>		
Beginning of period	(10,393)	-
Depreciation of building	(19,976)	(10,393)
End of period	<u>(30,369)</u>	<u>(10,393)</u>
Total property, plant and equipment, net	<u>\$ 1,669,631</u>	<u>\$ 1,689,607</u>
<b>Right-of-use assets</b>		
Beginning of period	1,830,124	-
Additions	-	1,926,656
Amortization	(43,918)	(96,532)
End of period	<u>\$ 1,786,206</u>	<u>\$ 1,830,124</u>

In August 2024, the Company purchased a 1.64-acre land package in the historic Heritage Center Industrial Park in Oak Ridge, Tennessee for \$1.7 million. The purchase included a 14,000 sq. ft., 2-story building to house the Company's nuclear technology headquarters.

As of December 31, 2024, the Company has one long-term operating lease for its corporate headquarters located at 10 Times Square, 30th Floor, New York, New York 10018. Lease components in the Company's long-term operating lease are accounted for following the guidance in ASC 842 for the capitalization of long-term leases. At December 31, 2024, the lease liability is equal to the present value of the remaining lease payments, discounted using a borrowing rate based on similar debt. Lease activity for the periods ended December 31, 2024 and September 30, 2024, was as follows:

Balance sheet information related to the Company's leases is presented below:

	<u>December 31,</u>	<u>September 30,</u>
	<u>2024</u>	<u>2024</u>
<b>Operating leases:</b>		
Operating right-of-use asset	\$ 1,786,206	\$ 1,830,124
Operating lease liability, current	322,870	281,352
Operating lease liability, long-term	1,568,530	1,650,383

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**

**6. PROPERTY, PLANT AND EQUIPMENT, RIGHT OF USE ASSET & LEASE LIABILITY (Continued)**

The following provides details of the Company's lease expense:

	<b>Three Months Ended December 31,</b>	
<b>Lease cost:</b>	<b>2024</b>	<b>2023</b>
Operating lease cost	\$ 104,398	\$ —

Other information related to leases is presented below:

	<b>Three Months Ended December 31,</b>	
<b>Cash paid for amounts included in the measurement of lease liabilities:</b>	<b>2024</b>	<b>2023</b>
Operating cash outflows from operating leases	\$ 100,815	\$ —

	<b>December 31, 2024</b>
Weighted-average discount rate – operating lease	13.5%
Weighted-average remaining lease term – operating lease (in years)	6.75

As of December 31, 2024, the expected annual minimum lease payments of the Company's operating lease liabilities were as follows:

<b>For the Years Ended September 30,</b>	
2025	\$ 238,596
2026	418,508
2027	428,971
2028	439,695
2029	450,688
Thereafter	855,567
Total future minimum lease payments, undiscounted	2,832,025
Less: Imputed interest for leases in excess of one year	(940,625)
Present value of future minimum lease payments	1,891,400
Less: Current portion of lease liabilities	(322,870)
Total lease liabilities less current portion	\$ 1,568,530

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**As of December 31, 2024**  
**(Unaudited)**

## 7. ACQUISITION OF ALIP TECHNOLOGY

On June 21, 2024, the Company acquired a novel annular linear induction pump (“ALIP”) technology used in small nuclear reactor cooling (“ALIP Acquisition”) from noted physicist, research engineer and project manager Carlos O. Maidana, PhD of Maidana Research. In connection with the transaction, Dr. Maidana has agreed to collaborate with the Company as a consultant on further development of the ALIP technology with a view towards achieving SBIR Phase III Award status.

As part of this transaction, Dr. Maidana assigned to NANO all intellectual property rights associated with the ALIP technology and product, his work on the foregoing grants and the proposal for the SBIR Phase III program. As consideration for the ALIP Acquisition, the Company (i) issued 50,000 shares of Common Stock to Dr. Maidana and (ii) paid Dr. Maidana cash consideration of \$50,000. Additionally, the Company agreed to deliver to Dr. Madana an additional (iii) 50,000 shares of Common Stock and (iv) cash consideration of \$50,000, contingent upon the successful completion of the SBIR Phase III project prior to June 21, 2025. The Company anticipates that the completion of the SBIR Phase III project will occur prior to June 21, 2025, and therefore has calculated the contingent consideration at the closing price of NANO’s stock on the date of acquisition. The ALIP Acquisition has been accounted for as an acquisition of in-process research and development that has been fully expensed on the acquisition date as research and development costs.

The ALIP Acquisition was recorded at its fair value as of June 21, 2024. The total purchase price was approximately \$1.67 million and is comprised of:

	<b>Total</b>
Cash (paid on closing)	\$ 50,000
Common shares (issued on closing)	786,500
Contingent cash	50,000
Contingent common shares (fair value at closing)	786,500
<b>Total purchase price</b>	<b>\$ 1,673,000</b>

As of June 21, 2024, the contingent cash and common shares obligation was recorded at its fair value of \$836,500 based on the closing price of NANO’s stock on the date of acquisition. At December 31, 2024, the contingent cash and common shares obligation was revalued to its fair value of \$1,294,750 based on the closing price of NANO’s stock on December 31, 2024, which resulted in a revaluation expense of \$524,250.

## 8. LONG-TERM INVESTMENTS, RELATED PARTY

In August 2024, the Company invested \$2,000,000 as an equity investment into LIS Technologies Inc. (“LIST”) (which is a related party through certain common ownership and management), as part of its \$11.88 million seed funding round. This additional capital into LIST is anticipated to help fuel the development of its proprietary, patented advanced laser enrichment technology.

Concurrently with our investment in LIST, the Company entered into an agreement with LIST to collaborate and assist in developing LIST’s technologies to secure a fuel supply for our future operations and the wider nuclear energy industry. The parties intend that LIST will provide the Company with enriched UF6 at no cost to be fabricated and sold to customers, with LIST to receive compensation as part of a profit-sharing arrangement to be agreed to between the companies in the future. Through collaboration with LIST, the Company anticipates building supportive facilities around LIST’s enrichment facility, including such facilities as deconversion and fuel fabrication.

The Company also leased approximately 7,000 square feet of dedicated space within its Oak Ridge, Tennessee based nuclear technology facility to LIST to enable the next phase of the revitalization of its proprietary laser-based process. The Company leases this space to LIST for \$7,000 per month. The lease is effective on September 2, 2024 and has a term ending on September 1, 2034.

The Company’s relationship with LIST is considered a related party transaction since certain of the Company’s executive directors and officers, including Jay Jiang Yu, Jaisun Garcha, and Dr. Tsun Yee Law, also serve as directors and officers for LIST, and James Walker serves as a consultant to LIST. The Company’s investment in LIST was unanimously approved by all of the Company’s disinterested independent directors.

## 9. ASSET ACQUISITION

On December 18, 2024, the Company entered into an asset purchase agreement (as amended, the “USNC Agreement”) with Ultra Safe Nuclear Corporation and certain of its subsidiaries (collectively, “USNC”) to acquire select nuclear energy technology assets (collectively, “USNC Assets”), on an as-is, where-is basis, including USNC’s micro modular nuclear reactor business marketed as a MMR® Energy System, which the Company plans to market as “KRONOS MMR™” (“MMR Business”), and transportable fission power system technology business marketed as a Pylon Transportable Reactor Platform, which we plan to market as “LOKI MMR™” (“Pylon Business”). The acquired assets included certain contracts, intellectual property rights, demonstration projects, and the equity interests of a Canadian entity, free and clear of any liens other than certain specified liabilities of USNC that were assumed, for a total purchase price of \$8.5 million in cash through an auction process (“Auction”) conducted pursuant to Section 363 of the U.S. Bankruptcy Code in connection with USNC’s pending Chapter 11 bankruptcy proceedings. On December 18, 2024, the United States Bankruptcy Court for the District of Delaware, the Bankruptcy Court overseeing USNC’s bankruptcy held a hearing where it approved the sale of the USNC Assets to the Company. As of December 31, 2024, the Company had provided a deposit of \$3.56 million to be applied towards the total purchase price of \$8.5 million.

## 10. SUBSEQUENT EVENTS

The Company has evaluated all events or transactions that occurred after December 31, 2024, through the date that the unaudited condensed consolidated financial statements were issued. During this period, there were no material subsequent events requiring disclosure except as stated as follows:

On January 10, 2025, the Company closed the purchase of the USNC Assets (see Note 9).

Between January 1, 2025 and the date that the unaudited condensed consolidated financial statements were issued, 178,136 warrants were exercised to purchase 89,067 Common Stock at an exercise price of \$20.00 per share generating gross proceeds of approximately \$1,781,000, 407,044 warrants were exercised to purchase 203,521 Common Stock at an exercise price of \$17.00 per share generating gross proceeds of approximately \$3,460,000, 10,000 stock options were exercised to purchase 10,000 common shares at an exercise price of \$1.50 per share generating proceeds of approximately \$15,000, 6,000 stock options were exercised to purchase 6,000 common shares at an exercise price of \$3.00 per share generating proceeds of approximately \$18,000, and 63,000 underwriter's warrants were exercised on a cashless basis to purchase 18,969 common shares.

In January 2025, the Company entered a lease for space to be used as a demonstration facility in Westchester County, New York for \$17,000 per month with the lease term ending on December 31, 2030. The Company can terminate this lease by providing seven months' prior notice.

## Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

*You should read the following discussion and analysis of our financial condition and results of operations of the unaudited financial statements and related notes included elsewhere in this Report. Data as of and for the year ended September 30, 2024 has been derived from our audited consolidated financial statements. Data as of and for the three months ended December 31, 2024 and 2023 has been derived from our unaudited condensed consolidated financial statements appearing in this Report. This following discussion contain forward-looking statements, such as those relating to our plans, objectives, expectations, intentions, and beliefs, which involve risks, uncertainties and assumptions. Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those discussed in the section titled “Cautionary Note Regarding Forward-Looking Statements” in this Report.*

*All references to “we,” “us,” “our” and the “Company” refer to NANO Nuclear Energy Inc., a Nevada corporation and its consolidated subsidiaries unless the context requires otherwise.*

### Overview

We are an emerging, pre-revenue nuclear energy company, developing smaller, cheaper, and safer advanced portable clean energy solutions, utilizing proprietary reactor designs, intellectual property, and research methods, to contribute towards a sustainable future. Led by a world class scientific and management team, our business plan involves a comprehensive engagement across every sector of the nuclear power and energy industry, traversing the path from sourcing raw materials through to developing cutting edge advanced nuclear microreactors. Our dedication extends further, encompassing both commercial nuclear fuel transportation, the fuel supply chain, technology development, and consulting services.

Currently, we are in the pre-revenue stage and are principally focused on four business lines as part of our development strategy:

- **Micro Nuclear Reactor Business.** We are developing the next generation of advanced nuclear microreactors, in particular (i) **ZEUS**, a portable solid core battery reactor, (ii) **ODIN**, a portable low-pressure coolant reactor, (iii) the fixed installation **KRONOS MMR™ Energy System** and (iv) the space focused, portable **LOKI MMR™**. Through the collaboration of our world-renowned nuclear scientists and engineers, the U.S. national nuclear laboratories, and government support, we believe our reactors will have the potential to impact the global energy landscape. Our goal is to commercially launch one of these products by 2030-2031.

Our ZEUS and ODIN microreactors have moved from the design stages to physical test work stages, with materials testing, irradiation testing, and initial rig construction currently underway, to ensure the accuracy of our modelled reactors and to optimize the dimensions and composition of the systems. We have conducted and completed external design audits on both the ZEUS and ODIN reactor designs to provide external validation and assistance to our designs. The design audits for the reactors were conducted and completed by the Idaho National Laboratory (INL). We are currently identifying sites for our prototype reactor for the purpose of conducting physical test work using nuclear material for both microreactors. We have communicated with the U.S. Nuclear Regulatory Commission (“NRC”) and Department of Energy (“DOE”), informing them of the status of our microreactor designs and the estimated internal timelines for our microreactor developments, with an understanding that definite timelines will be provided once available, to allow the NRC to arrange the necessary personnel to oversee the microreactor licensing process. We increased the size of the technical teams during 2024 to expedite the development of the reactor systems, as well as recruiting former NRC personnel to oversee our regulatory licensing processes, and to engage directly with the NRC to facilitate the commercialization planning.

In addition, in August 2024, we purchased a 14,000 sq. ft., 2-story building in Oak Ridge, Tennessee for \$1.7 million to house our Nuclear Technology Headquarters. Michael Norato, Ph.D., an INL and DOE veteran, was appointed as our Director of Nuclear Facilities and Infrastructure in December 2024. Dr. Norato will oversee the construction, development and licensing of our key facilities, including our recently acquired 14,000 sq. ft. Oak Ridge, Tennessee Nuclear Technology Headquarters and future test bed reactor sites for experiments related to our ZEUS and ODIN microreactors currently in development. He will also lead the establishment of deconversion and fuel processing facilities, helping to further our goal of being a vertically integrated leader in the U.S. nuclear fuel cycle. We expect to increase the number of personnel working at the facility over the next year and expect to ultimately employ up to 30 personnel at the facility. We are also currently undertaking approximately \$800 thousand dollars of renovation work to the facility as well.

Furthermore, in December 2024, we announced our execution of a memorandum of understanding with the Idaho Operations Office of the DOE setting forth a framework for the potential collaboration between our company and the DOE to evaluate constructing a demonstration reactor on a land package near INL. Through this memorandum, we will work with the DOE and Battelle Energy Alliance, LLC, the current operator of INL (“BEA”), to progress the development, siting, and eventual testing of our innovative microreactor designs. We will continue to weigh the DOE site against all potential siting options to ensure the most appropriate reactor site is located for our prototype.

On January 10, 2025, we closed the asset acquisition of the KRONOS MMR™ Energy System and the LOKI MMR™ from Ultra Safe Nuclear Corporation (“USNC”). These assets include certain contracts, intellectual property rights, prior demonstration projects, and pursuant to an arrangement with an affiliated entity described below, the equity interests of a Canadian entity, free and clear of any liens other than certain specified liabilities of USNC that were assumed, for a total purchase price of \$8.5 million in cash through an auction conducted pursuant to Section 363 of the U.S. Bankruptcy Code in connection with USNC’s pending Chapter 11 bankruptcy proceedings. On December 18, 2024, the United States Bankruptcy Court for the District of Delaware, the Bankruptcy Court overseeing USNC’s bankruptcy held a hearing where it approved the sale of the USNC Assets to us.

The newly acquired technologies target new markets beyond those targeted by the ZEUS and ODIN reactors, which are designed for more remote locations, such as island and remote communities, remote industry such as mining projects or oil and gas. The KRONOS MMR™ Energy System reactor will target larger population centers, industrial heat for larger industries, data and artificial intelligence centers for the tech industry, and LOKI MMR™ will target extra-terrestrial applications. The diversity of products positions us to capitalize on growing financial investment and societal momentum driving advanced nuclear energy technologies on a global scale across multiple different areas. We will leverage our world-class technical team to analyze and optimize these technologies, key components, and intellectual property, before integrating them into its operational frameworks and ongoing innovation efforts. We also intend to build upon and strengthen the extensive industry relationships that USNC established during its operations.

The acquired assets specifically included five contracts with third-party collaborators, 38 issued, pending or published patents, including six issued and four pending or published U.S. utility patents and three issued and four pending Canadian utility patents, 16 registered, pending or published trademarks, and any other technology and intellectual property related to the acquired businesses, rights related to a demonstration project related to the KRONOS MMR™ Energy System in the United States and the business records of the acquired businesses and related confidentiality rights. We acquired these assets through two new wholly owned subsidiaries incorporated in Nevada.

The acquired assets also included certain Canadian assets (the “Canadian Assets”), including three contracts with Canadian authorities, the equity interests of a Canadian partnership and rights related to a demonstration project related to the KRONOS MMR™ Energy System in Canada, the transfer of which need the consent of certain Canadian governmental entities (the “Canadian Consents”), with an escrow of \$250,000 deposited at the closing securing the Canadian Consents. If the Canadian Consents are not received within 90 days after the closing, we shall have the right to terminate the acquisition of the Canadian Assets and receive the return of \$250,000 held in escrow.

To better facilitate the Canadian Consents and to continue diligence of the Canadian partnership and other Canadian Assets, our disinterested directors unanimously approved the assignment of our rights to the Canadian Assets to Jay Jiang Yu, our founder, President, Secretary and Treasurer, and Chairman of the Board, and certain Canadian entities owned or controlled by Mr. Yu (the “Yu Entities”). In exchange, on January 10, 2025, we entered into an option agreement (“Yu Option Agreement”) with Mr. Yu and Yu Entities, pursuant to which we received an option back from Mr. Yu and Yu Entities to acquire for nominal consideration, for a period of five years after the receipt by the Yu Entities of the Canadian Assets upon receiving the Canadian Consents, any or all of the equity interests of the Yu Entities or the Canadian partnership, the other Canadian Assets or the material assets and business of the Canadian partnership.

In January 2025, we entered into a lease for a facility in Westchester County, New York where we plan to establish a purpose-built demonstration facility to be used to demonstrate the operation and viability of several non-nuclear parts and components of our nuclear microreactors in development. We have committed several million dollars to retrofit this facility, which we anticipated becoming operational in the spring of 2025. The facility will also support ongoing work on our SBIR Phase III project for its Annular Linear Induction Pump (ALIP) technology.

- **Fuel Processing Business.** Through our subsidiary, HALEU Energy Fuel Inc., and in coordination with the DOE, we are seeking to develop a domestic LEU and HALEU fuel supply chain to supply fuel not only for our own reactors but also to the broader advanced nuclear reactor industry. We have tentatively identified the site we intend to construct the facilities and have begun to build the team to design and develop these facilities.

We have also made a \$2 million strategic investment in and entered into a collaboration with a laser-based uranium enrichment technology company, LIS Technologies Inc. (“LIST”) (which is a related party), to support the development of their technology. Through this investment and related collaboration, we aim to assist in advancing LIST’s technologies to secure a reliable low enriched uranium fuel supply for our future operations and the broader nuclear energy industry. The parties intend that LIST will provide us with enriched uranium hexafluoride (UF6) at no cost to be fabricated and sold to customers, with LIST to receive compensation as part of a profit-sharing arrangement to be agreed to between the companies in the future. Through collaboration with LIST, we intend to construct the supporting facilities alongside LIST’s enrichment facility, including the deconversion and fuel fabrication facilities. We also leased 7,000 square feet of space at our Nuclear Technology Center in Oak Ridge, Tennessee to LIST. Our relationship with LIST is considered a related party transaction since certain of our executive directors and officers, including Jay Jiang Yu, Jaisun Garcha, and Dr. Tsun Yee Law, also serve as directors and officers for LIST, and James Walker serves as a consultant to LIST. Our investment in LIST was unanimously approved by all of our disinterested independent directors.

In December 2024, we announced that LIST and our company were selected by the DOE to participate as one of six contract awardees in the DOE’s Low-Enriched Uranium (LEU) Enrichment Acquisition Program (“LEU Acquisition Program”). Under the contract awarded to LIST, LIST was selected as the prime contractor, with our company as the key subcontractor bringing our technical and regulatory expertise in advanced nuclear solutions to the collaboration. LIST will oversee the development of the primary uranium enrichment processes using its novel laser technology, while our company will contribute towards development in the areas of fuel deconversion, fuel fabrication, and fuel transportation. The total overall amount appropriated under the LEU Acquisition Program across all six contract awardees is anticipated to be \$3.4 billion, to be awarded by the DOE via agreed to task orders each having a minimum value of \$2 million.

- Fuel Transportation Business.** Our transportation business will build on existing work completed at INL, Oak Ridge National Laboratory (“ORNL”) and Pacific Northwest National Laboratory (“PNNL”), the world’s premier U.S.-backed nuclear research facilities. We received an exclusive license for a high capacity HALEU fuel transportation basket design in April 2024, which will form the basis of a complete transportation system. This license grants us, as the licensee, exclusive rights for the use and development of the technology. In addition, the licensor is not permitted to license the technology to any other parties within the specified scope. We believe this technology is the most advanced concept in the United States for moving HALEU in commercial quantities. We are currently conducting work to modify the design to accommodate a variety of different fuel forms, so we are positioned to move fuel for both of our reactors and to enable us to provide transportation services to any nuclear company looking to move commercial quantities of fuel. In September 2024, we signed an agreement with GNS Gesellschaft für Nuklear-Service mbH (“GNS”) to undertake a wide-ranging project to produce an optimized HALEU transportation system solution based on our exclusively licensed fuel transportation basket design. The GNS agreement encompasses a study for the transport of multiple HALEU nuclear fuel types, including uranium oxide, TRISO particles, uranium-zirconium hydride, uranium mononitride, and salt fuel for molten salt reactors, thus optimizing the quantity of material that can be transported and developing a conceptual package design that will accommodate the new basket design. We intend to obtain NRC certification for our high-capacity HALEU transportation system to move commercial quantities of HALEU fuel around North America and internationally. If developed and commercialized, we believe this product will serve as the basis for a domestic HALEU transportation company capable of providing commercial quantities of HALEU fuel. We hope to put our fuel transportation business into operation by 2028. We have also brought on two former United Parcel Service (UPS) executives, one of which works for our fuel transportation subsidiary, with the other sitting on our Executive Advisory Board, to assist in growing the transportation business around our technology.
- Nuclear Consultation Services.** We also plan on providing nuclear service support and consultation services for the expanding and resurgent nuclear energy industry, both domestically and internationally. This includes, in coordination with the Cambridge Nuclear Energy Centre, the development of education resources. This business opportunity represents our nearest term revenue generating opportunity. Our goal is to start providing nuclear service support and consultation services for the nuclear energy industry in 2025, both domestically and internationally. As part of our efforts domestically, following our collaboration with Digihost Technology Inc. (“Digihost”) in December 2024, we expect to provide consulting services to Digihost beginning in the first quarter of 2025. These services will support the planning and execution of the Digihost project and will encompass regulatory advice, site assessment, roadmap development, and stakeholder engagement. In addition to these rendered services, we are examining strategic acquisitions to expand our business and consultancy services. We have commenced several material discussions with potential targets for such acquisitions, but as of the date of this Report we have not entered into any definitive agreements for such acquisitions. In combination with our intention to acquire existing revenue generating consultancy businesses, we are focusing on building our own internal nuclear consultation business in coordination with certain outside academic institutions, which we anticipate would require approximately \$2 million over the next twelve months to recruit additional staff and build corresponding infrastructure to be capable of providing these services.

Our mission is to become a commercially focused, diversified and vertically integrated nuclear energy company that will capture market share in the very large and growing nuclear energy sector. To implement our plans, since our founding in 2022, our management has had constant communications with key U.S. government agencies, including the DOE, the INL and ORNL, which are a part of the DOE’s national nuclear laboratory system. Our company also maintains important collaborations with leading researchers from the Cambridge Nuclear Energy Centre and The University of California, Berkeley.

## Overview of Operational Plan and Estimated Timelines for Corporate Achievements

Over the next twelve months, we will continue to progress the development of our advanced microreactors and our vertically integrated fuel processing business, with estimated expenditures to be approximately \$40 million. This allocation comprises approximately \$25 million dedicated to the research, development, and physical test work of our microreactors and other technologies, such as our fuel transportation system. A further allocation of approximately \$10 million will be allocated to the development of our planned HALEU fuel processing facilities alongside LIST, the related-party uranium enrichment company with whom we collaborate and in which we have made a strategic investment. The remaining approximately \$5 million is earmarked for miscellaneous costs essential to propelling the progress of our microreactors, encompassing the support of current personnel engaged in executive, finance, accounting, and other administrative functions. We may also utilize our cash resources raised in 2024 for acquisitions of complementary businesses or assets.

We estimate that our microreactor demonstration work for ODIN and ZEUS will be conducted between 2025 and 2027, our microreactor licensing application will be processed between 2026 and 2029, and our microreactors will be launched between 2030 and 2031. Given that we only recently acquired the KRONOS MMR and LOKI MMR systems, we are in the process of assessing and developing demonstration, licensing and commercial launch timelines for these assets. We also plan on providing nuclear service support and consultation services for the expanding and resurgent nuclear energy industry in 2025, both domestically and internationally. Notwithstanding the foregoing, there is no assurance that we can meet successfully the above-mentioned timelines. We are examining strategic acquisitions to expand our business and consultancy services. We have commenced several material discussions with potential targets for such acquisitions, but as of the date of this Report, we have not entered into any definitive agreements for such acquisitions.

Notwithstanding the foregoing, the outlined expenditures and the anticipated timelines for execution of our plans discussed above and throughout this Management’s Discussion and Analysis of Financial Condition and Results of Operations are estimations only. These are inherently subject to change due to certain factors, including adjustments in the microreactor development plan and uncertainties associated with the governmental licensing approval process. Given that these elements may exceed our initial expectations or lie beyond our control, we cannot guarantee the accuracy of the actual expenditures and timelines.

As of the date of this Report, we have not generated any revenues. We have incurred accumulated net losses of \$20,547,143 since inception through December 31, 2024.

## **Factors and Trends Affecting Our Business and Results of Operations**

### *Our Ability to Develop Our Microreactors*

In 2022, we began designing our two next-generation advanced nuclear microreactors, ZEUS and ODIN. ZEUS, is a solid core battery reactor, and ODIN, is a low-pressure salt coolant reactor. We aim to complete the design and concept evaluation for these reactors in under a two-year timeframe, progress through demonstration and physical test work, and initiate the licensing, certification, and development processes required to build a licensed prototype. Our goal is to commercially launch one of these microreactors between 2030 and 2031. The success of this endeavor will be dependent on our ability to effectively utilize our relationship with the national laboratories and DOE to advance our microreactor designs through demonstration work and take advantage of the large capabilities offered by the existing national nuclear sites. We have conducted and completed a design audit on the ODIN reactor to provide assistance with design considerations. Additionally, the design audit for the ZEUS reactor was conducted and completed by INL in February 2024. The report was finalized and issued by INL, summarizing their findings for us to facilitate the development of the reactor. The technical reactor audit provides an external and neutral perspective to assist the advancement of the concepts and to validate the microreactors' direction and technology.

With respect to the KRONOS MMR™ Energy System and the LOKI MMR™, given that we only recently acquired these assets, we are in the process of assessing and developing demonstration, licensing and commercial launch timelines for these assets. However, we believe the designs for these systems are fairly advanced, and our plan for 2025 is to leverage the efforts of USNC to date and develop more definitive schedules for these systems as we also work to integrate them and associated patents into our overall microreactor programs.

### *Development of Fuel Processing Business*

We believe, based on our market research, that no small modular reactor (“SMR”) and microreactor company is currently developing an integrated non-TRISO CAT II fuel supply chain to produce fuel for their reactors. Our strategy to create the fuel for our own reactors will also position us to supply fuel to the wider nuclear industry and other reactor manufacturers, addressing anticipated significant shortfalls in fuel supply. A CAT III facility allows for the processing and handling of U235 up to 10% U235 enrichment, there are currently three groups in the U.S. authorized to operate a CAT III facility. A CAT II facility allows for the processing and handling of U235 up to 20% U235 enrichment. We believe, based on our market research, that we are progressing towards being the only non-TRISO CAT II facility operator in the country, giving our business an enormous competitive advantage for both reactor development and establishing multiple sources of future revenue to de-risk our company. Currently, we believe, based on our market research, that no SMR or microreactor has any sales revenue, inhibiting the ability for any reactor company to progress, we are building a different and more robust business model.

### *Development of Fuel Transportation Business*

As we have developed our business, capability deficiencies in the U.S. nuclear industry that would affect the future operation of all SMR and microreactor companies became apparent, such as there exists no method of transporting commercial quantities of HALEU across North America. Our proactive approach to mitigate future impediments to our operations culminated in locating research and technology developed by INL, PNNL and ORNL, that had not been advanced because of budget constraints. We received an exclusive license for a high capacity HALEU fuel transportation basket design in April 2024, which will form the basis of a complete transportation package able to move the most commonly utilized fuel types. The license grants us, as the licensee, exclusive rights for the use and development of certain transportation technology. If developed and commercialized, we believe this product would be one of the few of its kind in North America and would serve as the basis for a domestic HALEU transportation company capable of providing commercial quantities of HALEU fuel.

We plan to establish a transportation business focused on the movement of both LEU and HALEU. Currently we are developing a regulatorily licensed, high-capacity HALEU transportation system, capable of moving commercial quantities of HALEU fuel around North America and beyond.

We are seeking to form the first transportation company able to supply all emerging SMR and microreactor companies with the fuel they require at their manufacturing facilities to construct their reactors. We also expect to service the national nuclear laboratories and DOE programs which require HALEU by providing the fuel for their programs. Mobile reactors requiring HALEU for remote military bases are also anticipated, with potential military contacts. During 2025, we plan to acquire land, or an existing transportation business, for our HALEU transportation base of operations. Our fuel transportation business will build on the work already completed by INL and ORNL to create a high-capacity HALEU transportation package, with 18 inner canisters, combined with a basket design and a borated aluminum flux trap. In September 2024, we signed an agreement with GNS to undertake a wide-ranging project to produce an optimized HALEU transportation system solution based on our exclusively licensed fuel transportation basket design. The GNS agreement encompasses a study for the transport of multiple HALEU nuclear fuel types, including uranium oxide, TRISO particles, uranium-zirconium hydride, uranium mononitride, and salt fuel for molten salt reactors, thus optimizing the quantity of material that can be transported and developing a conceptual package design that will accommodate the new basket design. We are receiving support from two former executives of the largest shipping company in the world who are assisting us in developing a North American transportation company using our licensed or developed technology to deliver (subject to applicable government licensing and certification) nuclear fuel for a wide customer base, including SMR and microreactor companies, national laboratories, military, and DOE programs.

We have identified an opportunity for more immediate revenue for our company by acquiring more expertise to advance our businesses and deploying those personnel as part of a consulting and services business. We have already identified several nuclear business services and consultancy providers, which have been assessed as potentially suitable for acquisition by our company. We have concentrated on identifying small teams with expert personnel, with good portfolios of work and existing contracts, and good expansion potential, which would provide us with immediate revenue post-acquisition. We believe we are in a competitively advantageous position to expand these acquired businesses with the highly qualified teams it has built over the previous years. This expansion potential can be further complimented by the education programs we are assembling with the Cambridge Nuclear Energy Centre, part of the University of Cambridge, which will involve the sponsorship of MSc and PhD Nuclear programs to produce the next generation of qualified nuclear energy personnel. Part of our education sponsorship programs will involve providing work to the qualifying individuals after they have completed their programs, allowing for further expansion of the nuclear services we are able to offer clients. In furtherance of this effort, in early August 2024 we announced that we have joined the University of Cambridge Nuclear Industry Club to further our collaboration with Cambridge and our efforts to foster and recruit the next generation of nuclear researchers and engineers. With an expanded team we plan to retain with a portion of the proceeds from our 2024 public offerings, we will market our expertise and deploy consultants to both government and private industry nuclear projects. Consultants will be hired out for either hourly rates, or for contractual periods and weekly or monthly rates depending on the project type and scope. The acquisitions and their subsequent expansions will also provide in-house expertise, at greatly reduced costs, which we can utilize for our own research and development, streamlining our company while expanding our technical and human capital capacity.

### *Regulatory Approvals*

The regulatory licensing process for our microreactor prototypes is expected to be completed by 2030 or 2031, with manufacturing facilities being constructed during the licensing phase so we are ready to deploy microreactors across the country upon licensing approval. Initial NRC contact will involve early communication from us of the estimated company timelines, so that the regulator can secure the required number of personnel to successfully examine the microreactors. Our ability to successfully license and certify our microreactors will subsequently be dependent on working through the licensing process with the NRC and satisfying their examinations that the reactor is safe to deploy to customers, provided the agreed protocols are adhered to. Our ability to successfully design and construct our own commercial nuclear HALEU fuel fabrication facility will be dependent on obtaining the necessary regulatory approvals from the NRC to permit the commercial deployment of the microreactors. The U.S. NRC inspects the site construction at new fuel cycle facilities and only approves the facility's capability to possess nuclear material after ensuring that the facility's safety controls are robust and able to safely handle these materials. Fuel cycle facilities must comply with the regulatory requirements established by the NRC. The facility will need to acquire an NRC license containing site-specific requirements that the facility is required to comply with. Each license is unique and is specific to the nuclear material and hazards present at the fuel cycle facility. To obtain a license will involve a lot of communication between the NRC and our company. NRC safety oversight includes three important components: NRC inspection, the routine assessment of each licensee's performance, and enforcement in the case that the regulatory requirements are not met. Our company and INL have identified the potential site and will work with the NRC through the process established under the National Environmental Policy Act of 1970, which will begin when a federal agency develops a proposal to take a major federal action. We have engaged with the DOE and contacted the NRC to advance our fuel fabrication facility construction intentions. We began scoping studies and cost estimation work for our fuel fabrication facility in late 2023, with site identification and design team building beginning in 2024, coinciding with engaging experienced licensing and regulatory experts to plan the licensing strategy for developing the facilities. Initial site preparation and construction work is estimated to begin in 2025, with completion of construction and commissioning of a facility occurring nearer 2030.

## *Technology Acquisitions and Collaborations*

During 2024, we have made announcements regarding our acquisition of a complementary nuclear pump technology (the ALIP technology) as well as non-binding memoranda of understanding with third party collaborators to explore the use of our microreactors in remote artificial intelligence data centers and the use of artificial intelligence in modernizing the nuclear regulatory and licensing process. We expect that a material aspect of our business will involve continuing to develop, identify or seek to collaborate on, or acquire novel and beneficial technology for our company. Our inability to grow our company through such acquisition or collaborations could have a material adverse effect on our business.

## **Results of Operations**

We are an early-stage company, and our historical results may not be indicative of our future results. Accordingly, the drivers of our future financial results, as well as the components of such results, may not be comparable to our historical or future results of operations.

### ***Comparison of the Three Months Ended December 31, 2024, and the Three Months Ended December 31, 2023***

#### ***Revenue***

We have not generated any revenue from our inception through December 31, 2024.

#### ***Expenses***

##### ***Research and Development Expense***

Our research and development expenses represent costs incurred for designing and engineering products, including the costs of developing design tools. All research and development costs related to product development are expensed as incurred.

Research and development expenses increased by \$384,907, or 74%, to \$904,923 for the three months ended December 31, 2024, compared to \$520,016 for the comparative period ended December 31, 2023, primarily due to our increased research and development of our microreactors during the three months ended December 31, 2024 compared to the three months ended December 31, 2023. Research and development expenses primarily reflect the internal and external personnel costs corresponding to the design and analysis of our microreactors as well as the costs to acquire technology and other assets from third parties.

##### ***General and Administrative Expense***

Our general and administrative expenses consist of compensation costs for personnel in executive, finance, accounting, and other administrative functions. General and administrative expenses also include legal fees, professional fees paid for accounting, auditing, consulting services, advertising costs, and insurance costs.

General and administrative expenses increased by \$1,665,674, or 201%, to \$2,494,570 for the three months ended December 31, 2024, compared to \$828,896 for the comparative period ended December 31, 2023, primarily due to additional office and staff costs to support our research and development activities during the three months ended December 31, 2024 compared to the three months ended December 31, 2023. During the three months ended December 31, 2024, general and administrative expenses primarily consisted of \$0.8 million in personnel costs and \$0.6 million in legal expenses. During the period ended December 31, 2023, general and administrative primarily consisted of \$0.4 million in personnel costs.

##### ***Revaluation of contingent consideration***

Revaluation of contingent consideration corresponds to equity based contingent consideration corresponding to the ALIP technology we acquired which is revalued at the end of each financial quarter based on the closing stock price of our common shares.

The revaluation of contingent consideration was \$524,250 for the three months ended December 31, 2024, compared to \$0 for the comparative period ended December 31, 2023, as a result of our acquisition of the ALIP technology on June 21, 2024.

##### ***Other Income***

During the three months ended December 31, 2024 and 2023, the Company earned interest income of \$789,381 and \$34,967, respectively, on its cash held at a financial institution. Also during the three months ended December 31, 2024, the Company earned \$21,000 from a lease agreement from a related party.

## Liquidity and Capital Resources

We believe that our existing cash will fund our current operating and research and development plans through at least the next twelve months from the date of this Report. Although we have negative operating cash outflows of \$3,242,526 for the three months ended December 31, 2024, and \$1,106,733 for the three months ended December 31, 2023, we had approximately \$123.3 million in cash as of December 31, 2024 (compared to approximately \$28.5 million as of September 30, 2024) and working capital of approximately \$125.9 million as of December 31, 2024 (compared to approximately \$27.5 million as of September 30, 2024). In addition, we received approximately \$8.0 million from exercises of warrants, \$1.2 million from exercises of stock options, and net proceeds of approximately \$92.3 million from our October 2024 Follow-on Offering, October 2024 Follow-on Over-allotment Option, and November 2024 Private Placement.

However, the future development of our business towards ultimate commercialization of our products will require significant amounts of cash resources. Since we do not anticipate generating meaningful revenues for several years, we intend to finance our future cash requirements for capital expenditures, research and development and business development activities and general working capital through public or private equity or debt financings, third-party (including government) funding, or any combination of these approaches. If we raise additional funds through further issuances of equity or equity-linked instruments, our existing stockholders could suffer significant dilution. Moreover, no assurances can be given that we will be able to raise required funding on favorable terms, if at all, and our inability to raise additional funding when needed could have a material adverse effect on our company and results of operations and could cause our business to fail.

### *Going Concern*

As part of issuing our unaudited condensed consolidated financial statements, we evaluated whether there were any conditions and events that raise substantial doubt about our ability to continue as a going concern over the twelve months after the date the unaudited condensed consolidated financial statements were issued. Since inception, we have incurred significant operating losses, and have an accumulated deficit of approximately \$20.5 million and negative operating cash flow during the three months ended December 31, 2024 and 2023. Management expects that operating losses and negative cash flows may increase from the 2024 levels because of additional costs and expenses related to our research and development activities. Our continued solvency is dependent upon our ability to obtain additional working capital to complete our reactor development, to successfully market our reactors and to achieve commerciality for our reactors.

To date, we have not generated any revenue. We do not expect to generate any revenue unless and until we are able to commercialize our reactors. We will require additional capital to develop our reactors and to fund operations for the foreseeable future. We expect our costs to increase in connection with advancement of our reactors toward commercialization. While we believe that our existing cash may be sufficient to support the development of our reactors in the near-term, certain costs are not reasonably estimable at this time and we may require additional funding.

Management is of the opinion that sufficient working capital is available to meet our company's liabilities and commitments as they come due for at least the next twelve months after the date the unaudited condensed consolidated financial statements are issued to conform to the going concern uncertainty period. In order to achieve our company's long-term strategy, our company expects to raise additional capital or secure other sources of financing to support its growth.

## Summary Statement of Cash Flows for the Three Months Ended December 31, 2024, and the Three Months Ended December 31, 2023

The following table sets forth the primary sources and uses of cash for the periods presented below:

	For the Three Months Ended December 31, 2024	For the Three Months Ended December 31, 2023
Net cash used in operating activities	\$ (3,242,526)	\$ (1,106,733)
Net cash used in investing activities	(3,560,000)	-
Net cash provided by financing activities	101,562,942	2,051,437
Net increase in cash	\$ 94,760,416	\$ 944,704

### Cash Flows used in Operating Activities

Net cash used by operating activities for the three months ended December 31, 2024 was \$3,242,526, which consisted of our net loss of \$3,113,362, net of non-cash items of \$63,894, and net of changes in working capital accounts of negative \$193,058.

Net cash used by operating activities for the three months ended December 31, 2023 was \$1,106,733, which consisted of our net loss of \$1,313,945, and net of changes in working capital accounts of \$207,212.

Our cash used in operating activities increased by \$2,135,793 during the three months ended December 31, 2024, due to an increase in net loss and changes in working capital accounts. The significant increase in cash used in operating activities during the three months ended December 31, 2024, when compared to the three months ended December 31, 2023, was primarily due to increased research and development activities, additional office and staff costs to support our research and development activities, and additional legal expenses during the three months ended December 31, 2024 compared to the three months ended December 31, 2023.

### Cash Flows used in Investing Activities

Net cash used by investing activities for the three months ended December 31, 2024 was \$3,560,000, representing the payment of deposits towards the acquisition of the USNC Assets that closed subsequent to December 31, 2024.

Net cash used by operating activities for the three months ended December 31, 2023 was \$0.

### Cash Flows provided by Financing Activities

Net cash provided by financing activities for the three months ended December 31, 2024 was \$101,562,943, which consisted of \$110,621,798 in cash received from the issuance of shares of Common Stock less \$9,058,855 in offering costs.

Net cash provided by financing activities for the three months ended December 31, 2023 was \$2,051,437, which consisted of cash received for stock subscriptions in advance as the consideration for the corresponding issuance of shares of Common Stock.

### Commitments

We are a party to one long-term operating lease for our corporate headquarters. We have one lease commitment corresponding to our corporate headquarters as of December 31, 2024 and as of September 30, 2024. Our corporate headquarters is located at 10 Times Square, 30th Floor, New York, New York 10018, covering approximately 7,800 square feet. We lease this space for \$33,605 per month whereby the monthly lease rent will increase by 2.5% on an annual basis. The lease has a term ending on July 31, 2031.

In January 2025, we entered a lease for space to be used as a demonstration facility in Westchester County, New York for \$17,000 per month with the lease term ending on December 31, 2030. We can terminate this lease by providing seven months' prior notice.

### Off-Balance Sheet Arrangements

As of December 31, 2024, and September 30, 2024, we have not engaged in any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

### Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information otherwise required under this Item.

### Item 4. Controls and Procedures.

#### Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures as of the period ended December 31, 2024, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on this evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective as of December 31, 2024. Accordingly, our management believes that the unaudited condensed consolidated financial statements included in this Report present fairly in all material respects our consolidated financial position, results of operations and cash flows for the periods presented.

Disclosure controls and procedures are designed to ensure that information required to be disclosed by us in our SEC filing reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

*Changes in Internal Control over Financial Reporting*

There have been no changes in internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) during the quarter ended December 31, 2024, that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

## PART II. OTHER INFORMATION

### Item 1. Legal Proceedings.

From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, operating results, financial condition or cash flows, except for the following:

On August 9, 2024, a putative securities class action lawsuit was filed against us and certain of our directors and officers in the United States District Court for the Southern District of New York, captioned Yvette Yang v. Nano Nuclear Energy Inc., et al., No. 1:24-cv-06057 (S.D.N.Y.). On October 28, 2024, the court entered an order appointing Hongyu Xie as lead plaintiff. On January 6, 2025, lead plaintiff filed an amended complaint, naming as defendants the Company, Jay Yu, James Walker, and Jaisun Garcha. The amended complaint asserts claims for alleged violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 on behalf of persons who purchased or otherwise acquired our securities from May 8, 2024 through July 30, 2024. The claims in the amended complaint relate to statements made by us and/or our directors or officers concerning the Company's business and prospects, including our progress toward development of nuclear microreactors and fuel fabrication facilities. We intend to file a motion to dismiss the amended complaint on or before February 21, 2025. We dispute the allegations in the amended complaint and intends to defend the case vigorously. The case is at an early stage and we cannot reasonably estimate the amount of any potential financial loss or cost that could result from the lawsuit.

In addition, on August 23, 2024, a putative shareholder derivative lawsuit was filed purportedly on behalf of our company, as nominal defendant, against certain of our directors and officers in the Eighth Judicial District Court of Clark County, Nevada, captioned William Latza, Derivatively on Behalf of Nano Nuclear, Inc. v. James Walker, et al., No. A-24-900423-C. On December 20, 2024, plaintiff filed an amended complaint. The amended complaint alleges claims for alleged breach of fiduciary duties, corporate waste, market manipulation, and racketeering, among others. The claims asserted in the amended complaint relate to our management, business and prospects, including, among others, our progress toward microreactor development, the qualifications of our management, and our investment in LIS Technologies Inc. On behalf of our company, the plaintiff seeks damages from the director and officer defendants and an order directing our company to take actions to reform and improve corporate governance and internal procedures. On February 4, 2025, our company filed a motion to dismiss the amended complaint pursuant to Rule 23.1 of the Nevada Rules of Civil Procedure for failure to make a demand or alleged demand futility, and our directors and officers filed a motion to dismiss the amended complaint pursuant to Rules 12(b)(5) and 23.1 of the Nevada Rules of Civil Procedure for failure to state a claim on which relief can be granted and plaintiff's lack of standing. The director and officer defendants deny all allegations of liability and intend to vigorously defend against all claims. Given the preliminary stage of the lawsuit and the inherent uncertainties of litigation, we cannot determine with certainty the outcome of the case at this time.

In addition, from time to time, we may be subject to various additional claims, lawsuits, and other legal and administrative proceedings that may arise in the ordinary course of business. Some of these claims, lawsuits, and other proceedings may range in complexity and result in substantial uncertainty; it is possible that they may result in damages, fines, penalties, non-monetary sanctions, or relief.

As we continue to grow and develop our products, we anticipate that we will expend significant financial and managerial resources in the defense of our products in the future. We also anticipate that we will expend significant financial and managerial resources to defend against claims that our products and services infringe upon the intellectual property rights of third parties.

### Item 1A. Risk Factors.

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information otherwise required under this Item.

### Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Not applicable.

### Item 3. Defaults upon Senior Securities.

None.

### Item 4. Mine Safety Disclosures.

Not applicable.

### Item 5. Other Information.

None.

### Item 6. Exhibits

Exhibit Number	Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
3.1	<a href="#">Articles of Incorporation of the Company</a>	S-1	333-278076	3.1	March 19, 2024
3.2	<a href="#">Certificate of Amendment to Articles of Incorporation of the Company</a>	S-1	333-278076	3.2	March 19, 2024
3.3	<a href="#">Amended and Restated Bylaws of the Company</a>	S-1	333-278076	3.3	March 19, 2024
4.1	<a href="#">Underwriter's Warrant, dated May 10, 2024</a>	8-K	001-42044	4.1	May 13, 2024

4.2	<a href="#">Warrant Agent Agreement, dated July 11, 2024, by and between the Company and VStock Transfer, LLC</a>	8-K	001-42044	4.2	July 15, 2024
4.3	<a href="#">Underwriter's Warrant, dated July 15, 2024</a>	8-K	001-42044	4.3	July 15, 2024
4.4	<a href="#">Underwriter's Warrant, dated October 25, 2024</a>	8-K	001-42044	4.2	October 25, 2024
4.5	<a href="#">2024 B Warrant Agent Agreement, dated October 23, 2024, by and between the Company and VStock Transfer, LLC</a>	8-K	001-42044	4.1	October 25, 2024
4.6	<a href="#">Form of Common Stock Purchase Warrant, dated November 27, 2024, between the Company and the Investors</a>	8-K	001-42044	4.1	November 27, 2024
31.1*	<a href="#">Certification of Chief Executive Officer, pursuant to Rule 13a-14(a) or Rule 15d-14(a)</a>				
31.2*	<a href="#">Certification of Chief Financial Officer, pursuant to Rule 13a-14(a) or Rule 15d-14(a)</a>				
32.1**	<a href="#">Certification of Chief Executive Officer pursuant to Section 1350 of the Sarbanes-Oxley Act of 2002</a>				
32.2**	<a href="#">Certification of Chief Financial Officer pursuant to Section 1350 of the Sarbanes-Oxley Act of 2002</a>				
101.INS	Inline XBRL Instance Document				
101.SCH	Inline XBRL Taxonomy Extension Schema Document.				
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.				
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.				
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.				
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.				
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).				

\* Filed herewith

\*\* Furnished herewith

**SIGNATURES**

Pursuant to the requirements of the Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**NANO NUCLEAR ENERGY INC.**

Date: February 13, 2025

By: /s/ James Walker

James Walker  
Chief Executive Officer  
(Principal Executive Officer)

Date: February 13, 2025

By: /s/ Jaisun Garcha

Jaisun Garcha  
Chief Financial Officer  
(Principal Financial and Accounting Officer)

## Certification Pursuant to Rule 13a-14(a)

I, James Walker, hereby certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Nano Nuclear Energy Inc.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's second fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 13, 2025

*/s/ James Walker*

James Walker  
Chief Executive Officer

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**Certification Pursuant to Rule 13a-14(a)**

I, Jaisun Garcha, hereby certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Nano Nuclear Energy Inc.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's second fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 13, 2025

/s/ Jaisun Garcha

Jaisun Garcha  
Chief Financial Officer

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**CERTIFICATION**

**Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

**(18 U.S.C. 1350)**

Pursuant to Section 906 of the Sarbanes-Oxley Act of (18 U.S.C. 1350), the undersigned officer of Nano Nuclear Energy Inc., a Delaware corporation (the "Company"), does hereby certify, to the best of such officer's knowledge and belief, that:

(1) The Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2024 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Form 10-Q fairly presents, in all materials respects, the financial condition and results of operations of the Company.

Date: February 13, 2025

*/s/ James Walker*

James Walker  
Chief Executive Officer

This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act, or otherwise subject to the liability of that section. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act or the Securities Exchange Act.

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**CERTIFICATION**

**Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

**(18 U.S.C. 1350)**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. 1350), the undersigned officer of Nano Nuclear Energy Inc., a Delaware corporation (the "Company"), does hereby certify, to the best of such officer's knowledge and belief, that:

(1) The Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2024 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Form 10-Q fairly presents, in all materials respects, the financial condition and results of operations of the Company.

Date: February 13, 2025

*/s/ Jaisun Garcha*

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Jaisun Garcha

Chief Financial Officer

This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act, or otherwise subject to the liability of that section. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act or the Securities Exchange Act.

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