## **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 June 30, 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)

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

(Address of principal executive offices)

(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
Common stock, par value \$0.0001 per share	NNE	Nasdaq Capital Market

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  $\boxtimes$  No  $\square$ 

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 $\Box$	Accelerated filer
Non-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.  $\Box$ 

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 August 13, 2024, there were 30,127,663 shares of the Company's common stock issued and outstanding.

10018

88-0861977

(I.R.S. Employer

Identification No.)

(Zip Code)

## NANO NUCLEAR ENERGY INC.

## Form 10-Q For the Quarter Ended June 30, 2024

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## 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 "Risk Factors" section of our Registration Statement on Form S-1 (File Number 333-278076) as filed with the U.S. Securities and Exchange Commission (the "SEC"), and as amended and declared effective on May 6, 2024 (the "IPO Registration Statement"), 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 some of these forward-looking statements by words or phrases such as "may," "will," "expect," "anticipate," "aim," "estimate," "intend," "plan," "believe," "is/are likely to," "potential," "continue" or other similar expressions. We have based these forward-looking statements largely on our current expectations and projections about future events that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements include statements relating to:

- Our status as an early-stage, pre-revenue company with a business model and marketing strategy still being developed and largely untested.
- Our ability to design, develop, manufacture and sell our proposed micro nuclear reactors.
- Our ability to develop a domestic HALEU fuel fabrication facility to supply the next generation of advanced nuclear reactors.
- 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 and other products and services.
- Unanticipated regulations related to 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 ability to identify and acquire complimentary technologies or businesses and to integrate the same into our business.
- Our ability to obtain and maintain intellectual property protection for our products.
- The anticipated benefits of the several non-binding memoranda of understanding we've executed relating to business and technology development initiatives for our company.
- 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 the IPO Registration Statement under the heading "Risk Factors" and elsewhere in the IPO Registration Statement. 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 and our 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

		ne 30, 2024 Jnaudited)	September 30, 2023			
ASSETS	(					
Current assets:						
Cash and cash equivalents	\$	13,789,532	\$	6,952,795		
Prepaid expenses		530,188		205,857		
Total current assets		14,319,720		7,158,652		
Deferred offering costs		-		75,000		
Deposits		235,235		-		
Right of use asset		1,872,763		-		
Total assets	\$	16,427,718	\$	7,233,652		
LIABILITIES, MEZZANINE, AND STOCKHOLDERS' EQUITY						
Current liabilities:						
Accounts payable and accrued liabilities	\$	231,611	\$	190,005		
Due to related parties		-		35,000		
Lease liability, current		352,281		-		
Contingent consideration		1,222,000		-		
Total current liabilities		1,805,892		225,005		
Lease liability, non-current		1,618,510		-		
Total liabilities		3,424,402		225,005		
Mezzanine Equity						
Common stock subject to possible redemption; 0 shares as of June 30, 2024 and 2,000,000 shares as of September 30, 2023		-		5,000,000		
Stockholders' Equity						
Preferred stock, \$0.0001 par value; 25,000,000 authorized as of June 30, 2024 and 100,000,000 authorized as of September 30, 2023; none issued and outstanding as of June 30, 2024 and September 30, 2023		-		-		
Common stock, \$0.0001 par value; 275,000,000 authorized as of June 30, 2024 and 100,000,000 authorized as of September 30, 2023; 29,003,888 and 23,184,869 shares issued and outstanding as of June 30, 2024 and September 30, 2023, respectively,						
excluding 2,000,000 shares as of September 30, 2023 subject to possible redemption		2,900		2,319		
Additional paid-in capital		27,942,461		9,288,553		
Accumulated deficit		(14,942,045)		(7,282,225)		
Total stockholders' equity		13,003,316		2,008,647		

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>					Nine Months Ended					
	Ju	ne 30, 2024	Ju	ne 30, 2023	June 30, 2024		J	June 30, 2023			
Operating expenses											
General and administrative	\$	2,301,307	\$	2,038,259	\$	4,553,512	\$	3,722,232			
Research and development		2,019,812		663,144		2,830,367		1,183,750			
Change in Fair Value											
of contingent consideration		385,500		-		385,500		-			
Loss from operations		4,706,619		2,701,403		7,769,379		4,905,982			
Other income		38,372		1,753		109,559		1,753			
Net loss	\$	(4,668,247)	\$	(2,699,650)	\$	(7,659,820)	\$	(4,904,229			
Net loss per share of common stock:											
Basic	\$	(0.17)	\$	(0.12)	\$	(0.31)	\$	(0.22			
Diluted	\$	(0.17)	\$	(0.12)	\$	(0.31)	\$	(0.22			
Weighted-average shares of common stock											
outstanding:											
Basic		27,730,227		22,846,298		24,919,094		22,121,634			
Diluted		27,730,227		22,846,298		24,919,094		22,121,634			

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 June 30, 2024

	Common shares	Amount	Additional paid-in capital	A	Accumulated deficit	S	Total tockholders' equity
Balance as of March 31, 2024	26,007,013	\$ 2,601	\$ 16,907,165	\$	(10,273,798)	\$	6,635,968
Offering common stock issuances	2,946,875	294	11,787,206		-		11,787,500
Offering costs	-	-	(1,538,405)		-		(1,538,405)
R&D acquisition - common stock issuances	50,000	5	786,495		-		786,500
Net loss	-	 -	 -		(4,668,247)		(4,668,247)
Balance as of June 30, 2024	29,003,888	\$ 2,900	\$ 27,942,461	\$	(14,942,045)	\$	13,003,316

## For the Nine Months Ended June 30, 2024

	Mezzanin	e Equity	Common		Additio paid-		cumulated	Sto	Total ockholders'
	Shares	Amount	shares	Amount	capit	al	deficit		equity
Balance as of September 30, 2023	2,000,000	\$ 5,000,000	23,184,869	\$ 2,3	19 \$ 9,28	8,553 \$	(7,282,225)	\$	2,008,647
Mezzanine equity conversion	(2,000,000)	(5,000,000)	2,000,000	2	00 4,99	9,800	-		5,000,000
Offering common stock issuances	-	-	3,769,019	3	76 14,25	3,561	-		14,253,937
Offering costs	-	-	-		- (1,53	8,405)	-		(1,538,405)
Acquisition common stock									
issuances	-	-	50,000		5 78	6,495	-		786,500
Equity-based compensation	-	-	-		- 15	2,457	-		152,457
Net loss	-				-	-	(7,659,820)		(7,659,820)
Balance as of June 30, 2024	-	\$ -	29,003,888	\$ 2,9	00 \$ 27,94	2,461 \$ (	(14,942,045)	\$	13,003,316

## For the Three Months Ended June 30, 2023

						A	Additional				Total
	Mezzanin	ie E	quity	Common			paid-in	Α	ccumulated	S	tockholders'
	Shares		Amount	shares	 Amount		capital		deficit		equity
Balance as of March 31, 2023	2,000,000	\$	5,000,000	22,406,869	\$ 2,241	\$	5,629,112	\$	(3,236,403)	\$	2,394,950
Common stock issuances	-		-	778,000	78		1,944,922		-		1,945,000
Equity-based compensation	-		-	-	-		1,444,530		-		1,444,530
Net loss			-		 -		-		(2,699,650)		(2,699,650)
Balance as of June 30, 2023	2,000,000	\$	5,000,000	23,184,869	\$ 2,319	\$	9,018,564	\$	(5,936,053)	\$	3,084,830

## For the Nine Months Ended June 30, 2023

						Ā	Additional				Total
	Mezzanir	ie E	quity	Common			paid-in	Α	ccumulated	St	tockholders'
	Shares		Amount	shares	Amount		capital		deficit		equity
Balance as of September 30, 2022	2,000,000	\$	5,000,000	20,501,500	\$ 2,050	\$	3,139,450	\$	(1,031,824)	\$	2,109,676
Common stock issuances	-		-	2,598,369	260		3,765,109		-		3,765,369
Equity-based compensation	-		-	85,000	9		2,114,005		-		2,114,014
Net loss	-		-	-	-		-		(4,904,229)		(4,904,229)
Balance as of June 30, 2023	2,000,000	\$	5,000,000	23,184,869	\$ 2,319	\$	9,018,564	\$	(5,936,053)	\$	3,084,830

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)

	Mo	or the Nine onths Ended ne 30, 2024	]	For the Nine Months Ended June 30, 2023
OPERATING ACTIVITIES				
Net loss	\$	(7,659,820)	\$	(4,904,229)
Adjustments to reconcile net loss to net cash used in operating activities:				
Equity-based compensation		152,457		2,114,014
Amortization of right of use asset		53,893		-
R&D acquisition paid in equity		786,500		-
Change in assets and liabilities:				
Prepaid expenses		(324,331)		(38,588)
Deposits		(235,235)		-
Accounts payable and accrued liabilities		41,606		147,028
Due to related parties		(35,000)		(10,000)
Lease liability		44,135		-
Contingent liability		1,222,000		-
Net cash used in operating activities		(5,953,795)		(2,691,775)
FINANCING ACTIVITIES				
Proceeds from common stock issuances		14,253,937		8,765,369
Offering costs		(1,408,405)		-
Payment of deferred offering costs		(55,000)		(75,000)
Net cash provided by financing activities		12,790,532		8,690,369
Net increase in cash		6,836,737		5,998,594
Cash and cash equivalents, beginning of period		6,952,795		2,129,999
Cash and cash equivalents, end of period	\$	13,789,532	\$	8,128,593
Non-cash transactions:	¢	(5.000.000)	¢	
Conversion from Mezzanine Equity to Stockholders' Equity	\$	(5,000,000)	\$	-
Inception of Right of Use Asset / Liability	\$	1,926,656	\$	-

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

## 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 nuclear energy company developing smaller, cheaper, and safer advanced portable clean energy solutions utilizing proprietary reactor designs, intellectual property and research methods. Currently in technical development are "ZEUS", a solid core battery reactor and "ODIN", a low-pressure coolant reactor, representing the Company's first generation of portable, on-demand capable, advanced nuclear micro reactors. The Company envisions readily replaceable mobile reactors 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.

Through its subsidiary, HALEU Energy Fuel Inc., the Company is also developing a domestic High-Assay Low-Enriched Uranium ("HALEU") fuel fabrication 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. The Company also plans to offer nuclear service support and consultation services.

These condensed consolidated interim financial statements include the accounts of the Company and its wholly-owned subsidiaries American Uranium Inc., HALEU Energy Fuel Inc., and Advanced Fuel Transportation 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 condensed consolidated interim 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 June 30, 2024, the Company had working capital of \$12,513,828 and accumulated deficit of \$14,942,045. For the nine months ended June 30, 2024, the Company had net loss of \$7,659,820, and negative cash flows from operations of \$5,953,795. At September 30, 2023, the Company had working capital of \$6,933,647 and accumulated deficit of \$7,282,225. For the year ended September 30, 2023, the Company had net loss of \$6,250,401, and negative cash flows from operations of \$3,867,573. The application of the going concern concept is dependent on the Company's ability to secure financing from capital markets or other sources, including investors, 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 condensed consolidated interim financial statements are issued to conform to the going concern uncertainty period. 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. After June 30, 2024, the Company completed an underwritten follow-on public offering generating gross proceeds of approximately \$18.0 million along with a follow-on over-allotment option generating gross proceeds of approximately \$2.70 million. See Note 8 for further information. These unaudited condensed consolidated interim financial statements or reclassifications of assets and liabilities which would be necessary if the Company were unable to continue as a going concern.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

## **Basis of Presentation**

The accompanying unaudited interim condensed consolidated interim 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 interim 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 June 30, 2024, and its results of operations for the three and nine months ended June 30, 2024 and 2023 and cash flows for the nine months ended June 30, 2024 and 2023. The results for the three and nine months ended June 30, 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, 2023 has been derived from the Company's audited financial statements.

## Cash and Cash Equivalents

Cash equivalents represent short-term, highly liquid investments, which are readily convertible to cash and have maturities of three months or less at time of purchase, while cash equivalents with an initial maturity of between three and twelve months at time of purchase are considered short-term investments. The Company's cash equivalents consist of certificates of deposit, are classified as held-to-maturity, and the estimated fair value of the investment approximates its amortized cost.

## Use of Estimates

The preparation of condensed consolidated interim 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 condensed consolidated interim 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. The Company maintains its cash balances at a financial institution and such amounts exceeded federally insured limits at June 30, 2024 and September 30, 2023. 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.

#### 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 June 30, 2024, the Company has one short-term operating lease and one long-term operating lease. As of September 30, 2023, the Company had one short-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. The Company's short-term lease relates to office facilities which did not meet the criteria for capitalization as of June 30, 2024 and September 30, 2023.



### 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 ("R&D") 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 consolidated statements of operations. Advertising costs expensed were \$227,361 and \$833,589, respectively, for the three and nine months ended June 30, 2024, and \$128,339 and \$305,912, respectively, for the three and nine months ended June 30, 2023.

## Legal Contingencies

The Company is not aware of any pending legal proceedings against the Company. 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 June 30, 2024. At June 30, 2024 and September 30, 2023, the Company recorded a full valuation allowance on its deferred tax assets in the amount of approximately \$3,580,000 and \$1,971,000, respectively. The effective tax rate was 0.0% for the three and nine months ended June 30, 2024 and 2023. The Company's effective tax rate for the three and nine months ended June 30, 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.

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 condensed consolidated interim 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. The Company's 2023 tax returns remain subject to examination by taxing jurisdictions. At June 30, 2024 and September 30, 2023, the Company does not believe it has any uncertain tax positions that would require either recognition or disclosure in the accompanying condensed consolidated interim 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 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 and nine months ended June 30, 2024 and 2023, there were no dilutive shares issued or outstanding.

## **Operating Segments**

For the three and nine months ended June 30, 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. There are no accounting pronouncements which have been issued but are not yet effective that would have a material impact on our current condensed consolidated interim financial statements.

#### **3. OTHER INCOME**

During the three and nine months ended June 30, 2024, the Company earned interest income of \$38,372 and \$109,559, respectively, on its cash held at a financial institution. During the three and nine months ended June 30, 2023, the Company earned interest income of \$1,753.

## 4. RELATED PARTIES

At June 30, 2024 and September 30, 2023, the Company had amounts due to related parties of \$nil and \$35,000, respectively. The amounts due at September 30, 2023 corresponded to unpaid amounts due to officers and directors for services rendered during the year ended September 30, 2023. The aggregate compensation paid, or payable, to officers and directors during the three months ended June 30, 2024 and 2023 were \$345,000 and \$110,000, respectively, and during the nine months ended June 30, 2024 and 2023 were \$635,000 and \$315,000, respectively, which are included in the accompanying condensed consolidated statements of operations under general and administrative expenses.

## **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

#### Incorporation

Upon incorporation of the Company, 10,000,000 shares of Common Stock were issued to an affiliate of the Company's founder, chairman and president, Jay Jiang Yu, for proceeds of \$50,000.

#### Seed Round

The Company's initial round of private financing (the "Seed Round") began in March 2022 and ended in April 2022. During the period from Inception through September 30, 2022, the Company sold 7,500,000 shares of Common Stock at a price of \$0.05 per share for proceeds of \$375,000 as part of the Seed Round.

## Angel Round

The Company's second round of private financing (the "Angel Round") began in April 2022 and ended in February 2023. During the period from Inception to September 30, 2022, the Company sold 2,326,500 shares of Common Stock at a price of \$1.00 per share for proceeds of \$2,326,500 as part of the Angel Round. During the year ended September 30, 2023, the Company sold 1,820,369 shares of Common Stock at a price of \$1.00 per share for proceeds of \$1,820,369 as part of the Angel Round.

#### Series A Round

The Company's third round of private financing (the "Series A Round") began in April 2023 and ended in June 2023. During the year ended September 30, 2023, the Company sold 778,000 shares of Common Stock at a price of \$2.50 per share for proceeds of \$1,945,000 as part of the Series A Round.

#### 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 approximately \$10,250,000, and net proceeds (after deducting discounts and offering expenses) of approximately \$9,000,000. 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 IPO Over-Allotment Option was exercised in full, and on May 22, 2024, the closing of the purchase of the IPO Over-Allotment Shares proceeds to the Company of approximately \$1,537,500 and net proceeds of approximately \$1,414,500. 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 for a term of five years from the first day of the seventh month after May 7, 2024. 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 three and nine months ended June 30, 2024.

Subsequent to June 30, 2024, the Company consummated a firm commitment underwritten follow-on offering. See Note 8 for further information.

#### 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.

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 accompanying consolidated balance sheet at September 30, 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 nine months ended June 30, 2023, the Company issued to two consultants an aggregate of 85,000 shares of Common Stock with an aggregate fair value of \$85,000, which represents equity-based compensation and is recorded within operating expenses. The fair value of shares is determined by the value of services rendered as indicated in the corresponding consulting agreements and by reference to recent cash sales of Common Stock to third parties.

## 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 3,370,352 shares available for issuance 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 1,758,460 shares of Common Stock available for issuance under the 2023 Stock Option Plan #2, and the maximum number of shares available under the 2023 Stock Option Plan #2, and the maximum number of stock options issued 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 shares of Common Stock. The plans are otherwise substantially similar in their substance.

During the nine months ended June 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, 2023, the Company issued 2,050,000 fully vested stock options under Stock Option Plan #1 exercisable at \$1.50 per common share with expiry on February 10, 2026, issued 1,450,000 fully vested stock options under Stock Option Plan #2 and 200,000 fully vested stock options which are not governed by the Company's 2023 Stock Option Plan #2 and 60,000 fully vested stock options which are not governed by the Company's 2023 Stock Option Plan #2 and 60,000 fully vested stock options which are not governed by the Company's 2023 Stock Option Plan #2 and 60,000 fully vested stock options which are not governed by the Company's 2023 Stock Option Plan #2 and 60,000 fully vested stock options which are not governed by the Company's 2023 Stock Option Plan #2 and 60,000 fully vested stock options which are not governed by the Company's 2023 Stock Option Plans that are exercisable at \$3.00 per common share with expiry on August 30, 2026. The 2,050,000 options were valued at \$584,484 based on a Black-Scholes valuation with the following assumptions (Risk-free interest rate: 4.19%; expected life of options: 1.5 years; estimated volatility: 82.5%; dividend rate: 0%). The 1,450,000 and 200,000 options were valued at \$1,444,530 based on a Black-Scholes valuation with the following assumptions (Risk-free interest rate: 4.21%; expected life of options: 1.5 years; estimated volatility: 82.5%; dividend rate: 0%). The 247,000 and 60,000 options were valued at \$269,989 based on a Black-Scholes valuation with the following assumptions (Risk-free interest rate: 4.57%; expected life of options: 1.5 years; estimated volatility: 82.5%; dividend rate: 0%). The 247,000 and 60,000 options were valued at \$269,989 based on a Black-Scholes valuation with the following assumptions (Risk-free interest rate: 4.57%; expected life of options: 1.5 years; estimated volatility: 82.5%; dividend rate: 0%).

During the nine months ended June 30, 2024 and during the year ended September 30, 2023, 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.

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

The weighted average grant date fair value of stock options issued during the year ended September 30, 2023 was \$0.57 per share. There was no remaining stock compensation expense to be recognized at September 30, 2023 as all options vested immediately upon grant.

## **Option** Activity

A summary of cumulative option activity under the 2023 Plan is as follows:

	Options outstanding								
	Weighted average Number of exercise price shares per share		Weighted average contractual term (in years)	Aggregate intrinsic value (in thousands)					
Outstanding – September 30, 2023	4,007,000	\$	2.23	2.54	\$	2,004			
Options granted	125,000		3.00	2.96		152			
Outstanding – June 30, 2024	4,132,000	\$	2.23	2.54	\$	2,156			
Vested during the period	125,000	\$	3.00	2.96	\$	152			
Vested at end of period	-	\$	-	-	\$	-			
Exercisable at the end of period	4,132,000	\$	2.26	2.07	\$	2,156			

## 6. RIGHT-OF-USE ASSET AND LEASE LIABILITY

As of June 30, 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 June 30, 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 three and nine months ended June 30, 2024 and 2023, was as follows:

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

Operating leases:	June 30, 2024	September 30, 2023
Operating right-of-use asset	\$ 1,872,763	\$ _
Operating lease liability, current	352,281	—
Operating lease liability, long-term	1,618,510	_

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

	Three Months Ended June 30,			Nine Months Ended June 30,				
Lease cost:		2024		2023	2024		2023	
Operating lease cost	\$	103,263	\$		\$ 131,632	\$		

Other information related to leases is presented below:

Cash paid for amounts included in the	Three Mont		 ded	Nine Months Ended June 30,		ded	
measurement of lease liabilities:		2024	2023		2024		2023
Operating cash outflows from operating leases	\$	33,605	\$ _	\$	33,605	\$	

	June 30, 2024
Weighted-average discount rate – operating lease	13.5%
Weighted-average remaining lease term – operating lease (in years)	7.3

As of June 30, 2024, the expected annual minimum lease payments of the Company's operating lease liabilities were as follows:

#### For the Years Ended September 30,

2024	\$ 100,815
2025	339,411
2026	418,508
2027	428,971
2028	439,695
Thereafter	1,306,255
Total future minimum lease payments, undiscounted	 3,033,655
Less: Imputed interest for leases in excess of one year	(1,062,864)
Present value of future minimum lease payments	1,970,791
Less: Current portion of lease liabilities	(352,281)
Total lease liabilities less current portion	\$ 1,618,510

## 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. 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. These efforts will build on previous Department of Energy ("DOE") grants for the technology aggregating over \$1.37 million in prior phases. Pursuant to a consulting agreement between NANO and Dr. Maidana, NANO will provide funding (estimated to be approximately \$350,000) and other resources necessary for the SBIR Phase III project, and Dr. Maidana will be the Principal Investigator on this project. The SBIR program is a federal initiative designed to support small businesses in conducting research and development with strong potential for commercialization. By funding these projects, the SBIR program aims to stimulate technological innovation and facilitate the transition of research into viable products and services. SBIR Phase I focuses on feasibility and technical merit, Phase II involves further development and prototype creation, and Phase III centers on commercialization, requiring external funding to bring the innovation to market. The ALIP technology, which is based on electromagnetic (rather than moving) pumps, is a key-enabling technology to the Company's ODIN microreactor in development. NANO's engineers have worked to identify relevant technologies to further optimize and simplify ODIN's design. The acquired ALIP technology to be separately commercialized within a year as a component for all salt-based coolant reactors. There are numerous advanced reactor designs which utilize salt-based coolants in fission energy industries, as well as in the advanced materials, space exploration, marine propulsion, and high-temperature and industrial process sectors.

The ALIP SBIR Phase III project acquired by the Company integrates several previous SBIR efforts, specifically:

- Grant Number DE-SC0019835: Development of a Small Electromagnetic Pump for Molten Salt.
- Grant Number DE-SC0022805: Software for Multiphysics Analysis and Design of Annular Linear Induction Pumps.
- Grant Number DE-SC0013992: Computational Tools for the Design of Liquid Metal Thermomagnetic Systems.

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 R&D that has been fully expensed on the acquisition date as R&D 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:

	Total
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
Total purchase price	\$ 1,673,000

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 June 30, 2024, the contingent cash and common shares obligation was revalued to its fair value of \$1,222,000 based on the closing price of NANO's stock on June 30, 2024, which resulted in a revaluation expense of \$385,500.

### 8. SUBSEQUENT EVENTS

The Company has evaluated all events or transactions that occurred after June 30, 2024, through the date that the condensed consolidated interim financial statements were issued. During this period, there were no material subsequent events requiring disclosure except as stated as follows:

On July 15, 2024, the Company consummated a firm commitment underwritten follow-on public offering (the "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 "Follow-on Warrants") based on an offering price of \$20.00 per unit (the "Follow-on Offering Price"), generating gross proceeds of approximately \$18.0 million, less underwriting discounts and other Follow-on Offering expenses. The units issued in the Follow-On Offering have no stand-alone rights, are not certificated and have not been issued as stand-alone securities. In connection with the Follow-on Offering, the Company granted the lead managing underwriter an option ("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 "Follow-on Over-allotment Shares") and 135,000 Warrants to purchase 67,500 shares of Common Stock (the "Follow-on Over-allotment Shares") and 135,000 Warrants to purchase of common Stock (the "Follow-on Over-allotment Shares") and 135,000 Warrants to purchase of Common Stock (the "Follow-on Offering. On July 12, 2024, the underwriting discounts and other Follow-on Offering were exercised the Follow-on Over-allotment Option in full with respect to the Follow-on Over-allotment Warrants, which closed on July 15, 2024 for nominal consideration.

On July 16, 2024, the underwriter exercised the Follow-on Over-allotment Option in full with respect to the Follow-on Over-allotment Shares, and on July 18, 2024, the closing of the purchase of the Follow-on Over-Allotment Shares occurred, generating gross proceeds to the Company of approximately \$2.70 million and net proceeds of approximately \$2.48 million.

Between July 15, 2024 and August 13, 2024, 127,550 Warrants were exercised to purchase 63,775 Common Stock at an exercise price of \$20.00 per share generating gross proceeds of approximately \$1,275,500, and 25,000 stock options were exercised to purchase 25,000 common shares at an exercise price of \$1.50 per share generating proceeds of approximately \$37,500.

## 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, 2023 has been derived from our audited consolidated financial statements. Data as of and for the three and nine months ended June 30, 2024 and 2023 has been derived from our unaudited 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 early-stage nuclear energy company developing smaller, cheaper, and safer advanced portable clean energy solutions, utilizing proprietary reactor designs, intellectual property and research methods, to develop technology and products that work towards a sustainable future. Led by a world class scientific and management team, we envision a business with comprehensive engagement within almost every sector of the nuclear power industry, from sourcing raw nuclear material, to fuel processing and fuel fabrication, and finally the deployment of our cutting edge microreactors. Our dedication extends further, to also develop into areas such as fuel transportation and nuclear service support 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, including our micro nuclear reactor business, our nuclear fuel fabrication business, our nuclear fuel transportation business, and our nuclear consultation services business.

Our mission is to become a commercially focused, diversified and vertically integrated technology-driven 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 secured certain connections within key U.S. government agencies, including the DOE, the Idaho National Laboratory ("INL") and Oak Ridge National Laboratory ("ORNL"), each of 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.

In light of approximately \$30 million in net proceeds we generated from our May 2024 initial public offering and our July 2024 underwritten follow-on offering, over the next twelve months, we will continue to progress our development of two advanced nuclear microreactors, ZEUS and ODIN, acquire land and begin design work for fuel fabrication facilities, and further develop our high capacity HALEU fuel transportation basket design (to which we have an exclusive patent license) to accommodate other fuel forms, with estimated expenditures to be approximately \$9 million. This allocation comprises approximately \$4 million dedicated to the research and development of products and technology, with a specific focus on the refinement of microreactor technology and the fuel fabrication process. The remaining \$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 estimate that our microreactor demonstration work and prototype will be conducted and built between 2024 and 2027, and our microreactor licensing application will be made and processed between 2026 and 2031. We anticipate that our microreactors will be launched around 2031, unless the Advance Act succeeds to reduce the licensing time. Notwithstanding the foregoing, there is no assurance that we can meet successfully above-mentioned timelines. We also plan on providing nuclear service support and consultation services for the expanding and resurgent nuclear energy industry, both domestically and internationally. If we are unable to acquire such a business by the end of 2024, we will then focus on building our own internal nuclear consultation business in coordination with certain outside academic institutions, which we anticipate would require approximately an additional \$1 million over the next twelve months to recruit additional staff and build corresponding infrastructure to be capable of providing these services.

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 \$14,942,045 since inception through June 30, 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 in the early 2030s. 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 Nano 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.

#### Design and Construction of Fuel Fabrication Facility

We have identified a land package that is suitable for the design, construction and commissioning of our own commercial nuclear High-Assay Low-Enriched Uranium ("HALEU") fuel fabrication facility to supply fabricated fuel to the next generation of advanced nuclear reactor companies, to our own reactors currently under development, to the U.S. nuclear industry, the U.S. national laboratories, and to supply the DOE's nuclear fuel needs if necessary. We hope to site our fuel fabrication facility near a national nuclear laboratory around 2028. We anticipate procuring unfabricated HALEU from a domestic U.S. company and we have signed a memorandum of understanding with Centrus Energy Corp. (NYSE American: LEU) ("Centrus") to begin HALEU fuel sourcing discussions.

#### Development of Fuel Transportation Business

We intend to produce a regulatorily licensed, high-capacity HALEU transportation product, capable of moving commercial quantities of HALEU fuel around North America. We hope to have our fuel transportation business in operation by 2027. We received an exclusive license for a high capacity HALEU fuel transportation basket design in April 2024, which was designed around a licensed third-party basket and cask technology. This license grants us, as the licensee, exclusive rights for 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. This technology enables us to transport fuel enriched by Centrus (the only company licensed to enrich to 19.75% U235 in the U.S), deconvert HALEU fuel, and fabricate HALEU fuel. We are seeking to form the first transportation company capable of supplying 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. Our fuel transportation business will build on the work already completed and authorized by the 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. We have also received private funding and support from the former executives of the largest shipping company in the world. These executives are aware of our transportation plans and have agreed to assist us in developing a HALEU transportation company to create the first vertically integrated HALEU commercial quantity delivery service in North America.



## Our Business Services and Consulting Business

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

By the end of 2024, we expect to start providing nuclear service support and consultation services for the nuclear energy industry, both domestically and internationally. This timeline is based on our plan to acquire a nuclear business services and consultancy provider. We have had preliminary discussions with some potential targets but are not presently a party to any definitive understandings or agreements. If we are unable to acquire such a business by the end of 2024, we will then focus on building our own internal nuclear consultation business in coordination with certain outside academic institutions, which we anticipate would require approximately \$1 million over twelve months to recruit additional staff and build corresponding infrastructure to be capable of providing these services. No assurances can be given that we will be able to successfully establish and grow our own consultation business, and our failure to do so would adversely affect our nearer term revenue prospects.

### 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. Nuclear Regulatory Commission ("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 datacenters 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 growth 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 June 30, 2024, and the Three Months Ended June 30, 2023

#### Revenue

We have not generated any revenue from our inception through June 30, 2024.

## Expenses

## Research and Development Expense

Our research and development ("R&D") 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.

R&D expenses increased by \$1,356,668, or 205%, to \$2,019,812 for the three months ended June 30, 2024, compared to \$663,144 for the comparative period ended June 30, 2023, primarily due to our acquisition of the ALIP technology which was expensed during the three months ended June 30, 2024 compared to the three months ended June 30, 2023. R&D 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. During the three months ended June 30, 2024 and 2023, \$nil and \$210,113, respectively, of our R&D expenses corresponded to equity-based compensation.

#### General and Administrative Expense

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

G&A expenses increased by \$263,048, or 13%, to \$2,301,307 for the three months ended June 30, 2024, compared to \$2,038,259 for the comparative period ended June 30, 2023, primarily due to additional office and staff costs to support our R&D activities during the three months ended June 30, 2024 compared to the three months ended June 30, 2023. During the three months ended June 30, 2024, G&A expenses primarily consisted of \$0.7 million in personnel costs. During the period ended June 30, 2023, G&A primarily consisted of \$1.6 million in personnel costs. During the three months ended June 30, 2024 and 2023, \$1.1 and \$1,234,417, respectively, of our G&A expenses corresponded to equity-based compensation.

#### 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 \$385,500 for the three months ended June 30, 2024, compared to \$nil for the comparative period ended June 30, 2023, as a result of our acquisition of the ALIP technology on June 21, 2024.

#### Other Income

During the three months ended June 30, 2024 and 2023, the Company earned interest income of \$38,372 and \$1,753, respectively, on its cash held at a financial institution.



#### Comparison of the Nine Months Ended June 30, 2024, and the Nine Months Ended June 30, 2023

#### Revenue

We have not generated any revenue from our inception through June 30, 2024.

## Expenses

### Research and Development Expense

Our R&D 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.

R&D expenses increased by \$1,646,617, or 139%, to \$2,830,367 for the nine months ended June 30, 2024, compared to \$1,183,750 for the comparative period ended June 30, 2023, primarily due to our acquisition of the ALIP technology which was expensed during the nine months ended June 30, 2024 compared to the nine months ended June 30, 2023. R&D 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. During the nine months ended June 30, 2024 and 2023, \$0 and \$420,563, respectively, of our R&D expenses corresponded to equity-based compensation.

#### General and Administrative Expense

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

G&A expenses increased by \$831,280, or 22%, to \$4,553,512 for the nine months ended June 30, 2024, compared to \$3,722,232 for the comparative period ended June 30, 2023, primarily due to additional office and staff costs to support our R&D activities during the nine months ended June 30, 2024 compared to the nine months ended June 30, 2023. During the nine months ended June 30, 2024, G&A expenses primarily consisted of \$1.7 million in personnel costs. During the period ended June 30, 2023, G&A primarily consisted of \$2.4 million in personnel costs. During the nine months ended June 30, 2023, G&A primarily consisted of \$2.4 million in personnel costs. During the nine months ended June 30, 2024 and 2023, \$152,457 and \$1,693,451, respectively, of our G&A expenses corresponded to equity-based compensation.

#### 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 \$385,500 for the nine months ended June 30, 2024, compared to \$nil for the comparative period ended June 30, 2023, as a result of our acquisition of the ALIP technology on June 21, 2024.

#### Other Income

During the nine months ended June 30, 2024 and 2023, the company earned interest income of \$109,559 and \$1,753, respectively, on its cash held at a financial institution.

#### Liquidity and Capital Resources

We believe that our existing cash will fund our current operating and R&D plans through at least the next twelve months from the date of this Quarterly Report. Although we have negative operating cash outflows of \$5,953,795 for the nine months ended June 30, 2024, and \$2,691,775 for the nine months ended June 30, 2023, we had approximately \$13.8 million in cash as of June 30, 2024 (compared to approximately \$7.0 million as of September 30, 2023) and working capital of approximately \$12.5 million as of June 30, 2024 (compared to approximately \$6.9 million as of September 30, 2023). In addition, we received net proceeds of approximately \$18.6 million from our Follow-on Offering and Follow-on Over-allotment Option in July 2024.

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, R&D 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 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 condensed consolidated financial statements are issued. Since inception, we have incurred significant operating losses, and have an accumulated deficit of approximately \$14.9 million and negative operating cash flow during fiscal 2024 and fiscal 2023. Management expects that operating losses and negative cash flows may increase from the 2023 levels because of additional costs and expenses related to our R&D 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 the next twelve months after the date the 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 Nine Months Ended June 30, 2024, and the Nine Months Ended June 30, 2023

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

		For the Nine Months Ended June 30, 2024		For the Nine Months Ended June 30, 2023	
Net cash used in operating activities	<u> </u>	(5,953,795)	\$ \$	(2,691,775)	
Net cash provided by financing activities		12,790,532		8,690,369	
Net increase in cash	\$	6,836,737	\$	5,998,594	

#### Cash Flows used in Operating Activities

Net cash used by operating activities for the nine months ended June 30, 2024 was \$5,953,795, which consisted of our net loss of \$7,659,820, net of non-cash items of \$992,850, and net of changes in working capital accounts. Net cash used by operating activities for nine months ended June 30, 2023 was \$2,691,775, which consisted of our net loss of \$4,904,229, net of non-cash items of \$2,114,014, and net of changes in working capital accounts. Our cash used in operating activities increased by \$3,262,020 during the nine months ended June 30, 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 nine months ended June 30, 2024, when compared to the nine months ended June 30, 2023, was primarily due to increased R&D activities and additional office and staff costs to support our R&D activities during the nine months ended June 30, 2024 compared to the nine months ended June 30, 2024.

#### Cash Flows provided by Financing Activities

Net cash provided by financing activities for the nine months ended June 30, 2024 was \$12,790,532, which consisted of \$14,253,937 in cash received from the issuance of shares of common stock less \$1,408,405 in offering costs and less a \$55,000 payment of deferred offering costs. Net cash provided by financing activities for the nine months ended June 30, 2023 was \$8,690,369, which consisted of \$8,765,369 in cash received from the issuance of shares of common stock less a \$75,000 payment of deferred offering costs.

#### Commitments

We are a party to one short-term operating lease for office space under a cancelable operating lease that terminates at the end of August 2024 and one long-term operating lease for our corporate headquarters. We have one lease commitment corresponding to our corporate headquarters as of June 30, 2024. We did not have any lease commitments as of September 30, 2023. 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.

#### **Off-Balance Sheet Arrangements**

As of June 30, 2024, and September 30, 2023, 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 end of the period ended June 30, 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, as of the evaluation date, our disclosure controls and procedures were effective as of June 30, 2024. Accordingly, management believes that the financial statements included in this Form 10-Q present fairly in all material respects our financial position, results of operations and cash flows for the period presented.

Disclosure controls and procedures are designed to ensure that information required to be disclosed by us in our Exchange Act 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 June 30, 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 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.). The complaint asserts claims for alleged violations of federal securities laws related to statements concerning the Company's business, including the Company's progress toward microreactor development. The plaintiff seeks to represent a class of certain persons who purchased or otherwise acquired the Company's common stock during the period from May 8, 2024 through July 18, 2024 and seeks unspecified damages and other relief. The Company disputes the allegations in the complaint and intends to defend the case vigorously. The case is at an early stage and the Company cannot reasonably estimate the amount of any potential financial loss or cost that could result from this lawsuit.

## 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

			Incorpora	ted by Referen	ce
Exhibit Number	Description	Form	File No.	Exhibit	Filing Date
3.1	Articles of Incorporation of the Company	S-1	333-278076	3.1	March 19, 2024
3.2	Certificate of Amendment to Articles of Incorporation of the Company	S-1	333-278076	3.2	March 19, 2024
3.3	Amended and Restated Bylaws of the Company	S-1	333-278076	3.3	March 19, 2024
4.1	Underwriter's Warrant, dated May 10, 2024	8-K	001-42044	4.1	May 13, 2024
4.2	Warrant Agent Agreement, dated July 11, 2024, by and between the Company and VStock Transfer, LLC	8-K	001-42044	4.2	July 15, 2024
4.2	Underwriter's Warrant, dated July 15, 2024	8-K	001-42044	4.3	July 15, 2024
31.1*	Certification of Chief Executive Officer, pursuant to Rule 13a- 14(a) or Rule 15d-14(a)				
31.2*	<u>Certification of Chief Financial Officer, pursuant to Rule 13a-</u> 14(a) or Rule15d-14(a)				
32.1**	<u>Certification of Chief Executive Officer pursuant to Section</u> 1350 of the Sarbanes-Oxley Act of 2002				
32.2**	<u>Certification of Chief Financial Officer pursuant to Section</u> 1350 of the Sarbanes-Oxley Act of 2002				
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: August 14, 2024	By:/s/ James Walker James Walker Chief Executive Officer (Principal Executive Officer)
Date: August 14, 2024	By:/s/ Jaisun Garcha Jaisun Garcha Chief Financial Officer (Principal Financial and Accounting Officer)
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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;
  - 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: August 14, 2024

/s/ James Walker

James Walker Chief Executive Officer I, Jaisun Garcha, hereby certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q of Nano Nuclear Energy Inc.
- 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;
  - 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: August 14, 2024

/s/ Jaisun Garcha

Jaisun Garcha Chief Financial Officer

### 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 June 30, 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: August 14, 2024

/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.

#### 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 June 30, 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: August 14, 2024

/s/ Jaisun Garcha

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.