

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

**FORM 10-K**

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

For the fiscal year ended September 30, 2024

OR

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

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

Commission file number: **001-42044**

**NANO NUCLEAR ENERGY INC.**

(Exact name of registrant as specified in its charter)

**Nevada**

(State or other jurisdiction of  
incorporation or organization)

**88-0861977**

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

**10 Times Square, 30<sup>th</sup> Floor  
New York, New York 10018**  
(Address of principal executive offices)

**(212) 634-9206**

(Registrant's telephone number, including area code)

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

**Title of Each Class:**

**Trading Symbol(s):**

**Name of Each Exchange on Which Registered:**

Common Stock, par value \$0.0001 per share

NNE

The Nasdaq Stock Market LLC

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

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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

The registrant was not a public company as of the last business day of its most recently completed second fiscal quarter and, therefore, cannot calculate the aggregate market value of its voting and non-voting common equity held by non-affiliates as of such date.

As of December 27, 2024, there were 36,596,849 shares of common stock issued and outstanding.

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## PART I

### CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (this “Report”) contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, which involve risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance and may include statements concerning, among other things, financial results; business plans; future liabilities and other obligations; impairments and amortization; estimates of the financial impact of certain items, accounting treatment, events or circumstances; and capital allocation. Our actual results could differ materially from those anticipated in the forward-looking statements for many reasons, including the reasons described in our “Business,” “Risk Factors,” and “Management Discussion and Analysis of Financial Condition and Result of Operations” sections, as well as those discussed elsewhere in this Report. In some cases, you can identify these forward-looking statements by terms such as “anticipate,” “believe,” “continue,” “could,” “depends,” “estimate,” “expects,” “intend,” “may,” “ongoing,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would,” “assumption” or “judgment” or the negative of those terms or other similar expressions, although not all forward-looking statements contain those words.

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

- Our ability to design, develop, manufacture and sell our proposed micro nuclear reactors.
- Our ability to develop a domestic Low Enriched Uranium (LEU) and High-Assay Low-Enriched Uranium (HALEU) fuel supply chain to supply the next generation of advanced nuclear reactors and our own systems.
- Our ability to produce a regulatorily licensed, high-capacity HALEU transportation package, capable of moving commercial quantities of HALEU fuel.
- Our ability to provide nuclear service support and consultation services for the expanding and resurgent nuclear energy industry, both domestically and internationally.
- Our ability to source, retain, and expand our technical and business staff to meet the demands of our expanding and diversifying business.
- Our ability to raise the substantial amount of additional funds that will be necessary for our business to succeed, which funds may not be available on acceptable terms or available at all.
- Assumptions relating to the size of the market for our micro nuclear reactors.
- Unanticipated regulations of nuclear energy that add barriers to our business and have a negative effect on our operations.
- Our estimates of expenses, future revenue, capital requirements and our needs for, or ability to obtain, additional financing.
- Our status as an early-stage pre-revenue company in a rapidly evolving industry with a business model that still being developed and is largely untested.
- Our ability to avoid a significant disruption in our information technology system, including security breaches, or our ability to implement new system and software successfully.
- Our ability to obtain and maintain intellectual property protection for our products.
- The other risks identified in this Report including, without limitation, those under “*Risk Factors*,” “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*,” and “*Business*” as such factors 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. A forward-looking statement is neither a prediction nor a guarantee of future events or circumstances. You should not place undue reliance on the forward-looking statements. Except as required by law, we undertake no obligation to update or revise any of the 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.

Unless the context requires otherwise, references in this Report to “we,” “us,” “our,” “our company,” “the Company” or similar terminology refer to NANO Nuclear Energy Inc., including its consolidated subsidiaries.

## SUMMARY OF SIGNIFICANT RISKS

The following is a summary of some of the risks and uncertainties as of the date of the filing of this Annual Report on Form 10-K that could materially adversely affect our business, financial condition and results of operations. You should read this summary together with the more detailed description of each risk factor contained in the “Risk Factors” section of this Report.

### *Risks Related to Our Industry and Business*

- We have incurred losses and have not generated any revenue since our inception. We anticipate that we will continue to incur losses, and expect that we will not generate revenue, for the foreseeable future.
- We are an early-stage company in an emerging market with an unproven business model, new and unproven technologies, and a short operating history, which makes it difficult to evaluate our current business and prospects and may increase the risk of your investment.
- Our business plans will require us to raise substantial additional amounts of capital. Future capital needs will require us to sell additional equity or debt securities that will dilute or subordinate the rights of our common stockholders. In addition, we may be unable to secure government grants as part of our funding strategy.
- We and our officers and directors are presently parties to securities law and fiduciary duty lawsuits relating to our public statements made since our initial public offering. Our reputation may be damaged by these suits, and if we are unable to have them dismissed or should we receive adverse outcomes, our business and results of operations may suffer, including as a result of our indemnification obligations to our directors and officers.
- The failure of production and commercialization of nuclear micro reactors as planned will adversely and materially affect our business, financial condition, and result of operations.
- We are in the process of developing a domestic HALEU fuel processing facility to supply the next generation of advanced nuclear reactors. The failure of completion and operation of such facility as planned will adversely and materially affect our business, financial condition, and result of operations.
- We plan to produce a regulatorily licensed, high-capacity HALEU transportation system, capable of moving commercial quantities of HALEU fuel around North America and worldwide. The failure of production and commercialization of such products as planned will adversely and materially affect our business, financial condition, and result of operations.
- We plan to provide nuclear service support and consultation services for the expanding and resurgent nuclear energy industry, both domestically and internationally. Failure to do so as planned will adversely and materially affect our business, financial condition, and result of operations.
- We have undertaken and will continue to pursue strategic acquisitions. These acquisitions may be difficult to consummate and integrate and may create losses for us or not provide us with the anticipated benefits. We may not be able to successfully integrate our previous and future acquisitions or generate sufficient revenues or earnings from future acquisitions, which could cause our business to suffer.
- All of our executive officers are presently engaged by us on an independent contractor basis, except for Jay Jiang Yu, our founder, President, Secretary and Treasurer, and Chairman of the Board, with whom we have an employment agreement, and they each have management, advisory or directorship positions with other companies and may allocate their time to other businesses, which may pose certain risks in fulfilling their obligations with us.

### ***Risks Related to Our Intellectual Property***

- If we fail to develop, gain approval for, protect or enforce our intellectual property or proprietary rights, our business and operating results could be harmed.
- We rely on our unpatented proprietary technology, trade secrets, designs, experiences, work flows, data, processes, software and know-how.
- We may be accused of infringing intellectual property rights of third parties and content restrictions of relevant laws, which may materially and adversely affect our business, financial condition and results of operations.

### ***Risks Related to Regulation and Compliance***

- Our business is subject to a wide variety of extensive and evolving government laws and regulations. Changes in and/or failure to comply with such laws and regulations could have a material adverse effect on our business.
- If we fail to comply with the laws and regulations relating to the collection of sales tax and payment of income taxes in the various states in which we do business, we could be exposed to unexpected costs, expenses, penalties and fees as a result of our non-compliance, which could harm our business.

### ***General Risks Associated with Our Company***

- We are highly dependent on our senior management team and other highly skilled personnel. If we are unable to attract, retain and maintain highly qualified personnel, including our senior management team, we may not be able to implement our business strategy and our business and results of operations would be harmed.
- Mr. Jay Jiang Yu, our President, Secretary, Treasurer, and Chairman of the Board, has a significant influence over our company due to his ownership of a material percentage of our outstanding common stock. Also, his interests may not always be aligned with the interests of our other stockholders, which may lead to conflicts of interest that harm our company.
- Our ability to effectively manage our anticipated growth and expansion of our operations will also require us to enhance our operational, financial and management controls and infrastructure, human resources policies and reporting system. These enhancements and improvements will require significant capital expenditures and allocation of valuable management and employee resources.
- We are subject to cybersecurity risks.
- We will incur significantly increased costs as a result of, and devote substantial management time to operating as, a public company.
- We are an “emerging growth company,” and we cannot be certain if the reduced reporting and disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

### ***Risks Related to Ownership of Our Common Stock***

- The trading market for our common stock is very new, and consistently robust and liquid trading market may not develop or be sustained over the long term.
- The trading price of our common stock has been and may continue to be volatile, and you could lose all or part of your investment.
- If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.
- Future sales of our securities or warrants exercisable for our common stock may depress our stock price.
- Our failure to meet the continued listing requirements of Nasdaq could result in a delisting of our common stock.
- Our directors, executive officers and principal stockholders will continue to have substantial control over our company after this offering, which could limit your ability to influence the outcome of key transactions, including a change of control.

## ITEM 1. Business

### Overview

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

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

- **Micro Nuclear Reactor Business.** We are developing the next generation of advanced nuclear microreactors, in particular **ZEUS**, a solid core battery reactor, and **ODIN**, a low-pressure salt coolant reactor. With these products, we are advancing the development of the next generation of portable, on-demand capable, advanced nuclear microreactors. Through the collaboration of our world-renowned nuclear scientists and engineers, the U.S. national nuclear laboratories, and government support, we believe our reactors will have the potential to impact the global energy landscape. Our goal is to commercially launch one of these products by 2030-2031.

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

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

Furthermore, in December 2024, we announced our execution of a memorandum of understanding with the Idaho Operations Office of the DOE setting forth a framework for the collaboration between our company and the DOE to evaluate the construction of a demonstration reactor on a land package near INL. Through this memorandum, we will work with the DOE and Battelle Energy Alliance, LLC, the current operator of INL (“BEA”), to progress the development, siting, and eventual testing of our innovative microreactor designs.

Also, on December 18, 2024, we entered into an asset purchase agreement (“USNC Agreement”) with Ultra Safe Nuclear Corporation and certain of its subsidiaries (collectively, “USNC”) to acquire select nuclear energy technology assets on an as-is, where-is basis, including USNC’s micro modular nuclear reactor business marketed as a **MMR® Energy System**, and transportable fission power system technology business marketed as a Pylon Transportable Reactor Platform, including certain contracts, intellectual property rights, demonstration projects and the equity interests of two non-U.S. entities (collectively, “USNC Assets”), for a total purchase price of \$8.5 million in cash through an auction process (“Auction”) conducted pursuant to Section 363 of the U.S. Bankruptcy Code in connection with USNC’s pending Chapter 11 bankruptcy proceedings. The closing of the acquisition is expected to occur in the near future and remains subject to satisfaction of customary closing conditions in a bankruptcy proceeding. On December 18, 2024, the United States Bankruptcy Court for the District of Delaware, the Bankruptcy Court overseeing USNC’s bankruptcy held a hearing where it approved the sale of the USNC Assets to us. In the Auction, we submitted a bid for the acquisition of substantially all of the assets of USNC, including their fuel business and their technology assets marketed as EmberCore and Nuclear Thermal Propulsion (NTP) (such assets other than the USNC Assets, the “Other USNC Assets”), and was selected as the back-up bidder for the Other USNC Assets in the Auction. In the event that the winning bidder of the Other USNC Assets in the Auction fails to consummate such acquisition, we will be required to acquire all such Other USNC Assets in addition to the USNC Assets for a total purchase price, inclusive of the \$8.5 million for the USNC Assets, of \$36,190,000.

The newly acquired technologies align closely with our intended uses for **ZEUS** and **ODIN**, which are designed for remote, industrial, infrastructural, maritime, and extra-terrestrial applications, including large-scale data and artificial intelligence centers and other energy-intensive operations, positioning us to capitalize on growing financial investment and societal momentum driving advanced nuclear energy technologies on a global scale. We will leverage our world-class technical team to analyze and optimize these technologies, key components, and intellectual property, before integrating them into its operational frameworks and ongoing innovation efforts. We also intend to build upon and strengthen the extensive industry relationships that USNC established during its operations. This includes collaboration with the U.K. government on the MMR reactor under a cost-share program and ensuring continuity in licensing, regulatory, and grant-related efforts wherever feasible. The acquired technology will also enable us to refine and better tailor our offerings within previously announced collaborations and partnerships, including ongoing initiatives.

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

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

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



- **Fuel Transportation Business.** Our transportation business will build on existing work completed at INL, Oak Ridge National Laboratory (ORNL) and Pacific Northwest National Laboratory (PNNL), the world's premier U.S.-backed nuclear research facilities. We received an exclusive license for a high capacity HALEU fuel transportation basket design in April 2024, which will form the basis of a complete transportation system. This license grants us, as the licensee, exclusive rights for the use and development of the technology. In addition, the licensor is not permitted to license the technology to any other parties within the specified scope. We believe this technology is the most advanced concept in the United States for moving HALEU in commercial quantities. We are currently conducting work to modify the design to accommodate a variety of different fuel forms, so we are positioned to move fuel for both of our reactors and to enable us to provide transportation services to any nuclear company looking to move commercial quantities of fuel. In September 2024, we signed an agreement with GNS Gesellschaft für Nuklear-Service mbH (GNS) to undertake a wide-ranging project to produce an optimized HALEU transportation system solution based on our exclusively licensed fuel transportation basket design. The GNS agreement encompasses a study for the transport of multiple HALEU nuclear fuel types, including uranium oxide, TRISO particles, uranium-zirconium hydride, uranium mononitride, and salt fuel for molten salt reactors, thus optimizing the quantity of material that can be transported and developing a conceptual package design that will accommodate the new basket design. We intend to obtain NRC certification for our high-capacity HALEU transportation system to move commercial quantities of HALEU fuel around North America and internationally. If developed and commercialized, we believe this product will serve as the basis for a domestic HALEU transportation company capable of providing commercial quantities of HALEU fuel. We hope to put our fuel transportation business into operation by 2026. We have also brought on two former United Parcel Service (UPS) executives, one of which works for our fuel transportation subsidiary, with the other sitting on our Executive Advisory Board, to assist in growing the transportation business around our technology.
- **Nuclear Consultation Services.** We also plan on providing nuclear service support and consultation services for the expanding and resurgent nuclear energy industry, both domestically and internationally. This includes, in coordination with the Cambridge Nuclear Energy Centre, the development of education resources. This business opportunity represents our nearest term revenue generating opportunity. Our goal is to start providing nuclear service support and consultation services for the nuclear energy industry in 2025, both domestically and internationally. As part of our efforts domestically, following our collaboration with Digihost Technology Inc. ("Digihost") in December 2024, we expect to provide consulting services to Digihost beginning in the first quarter of 2025. These services will support the planning and execution of the Digihost project and will encompass regulatory advice, site assessment, roadmap development, and stakeholder engagement. In addition to these rendered services, we are examining strategic acquisitions to expand our business and consultancy services. We have commenced several material discussions with potential targets for such acquisitions, but as of the date of this Report, we have not entered into any definitive agreements for such acquisitions. In combination with our intention to acquire existing revenue generating consultancy businesses, we are focusing on building our own internal nuclear consultation business in coordination with certain outside academic institutions, which we anticipate would require approximately \$2 million over the next twelve months to recruit additional staff and build corresponding infrastructure to be capable of providing these services.

## **Our Mission**

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

## **Our Industry**

We believe that the U.S. domestic nuclear energy sector is undergoing a renaissance that we believe we can capitalize on. We strongly support objectives of the DOE and the International Atomic Energy Agency (IAEA) for the peaceful use of nuclear energy, and we intend for our technology to form part of the U.S. foreign policy to advance the peaceful use of nuclear energy, science and technology, and drive new resources to projects and activities in developing countries with the greatest need. A key part of our business plan will seek to become a nuclear technology organization that can grow the U.S. global energy market engagement and concurrently support global market opportunities.

We further believe that our microreactors can address various environmental and energy challenges through their innovative design and capacities, including their versatile and easily deployable nature in remote locations. We plan to target business development activities for our microreactors 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. As a result, we intend to support a broad set of clean energy applications.

### **Our Micro Nuclear Reactor Business**

A key pillar of our business plan is to provide readily replaceable mobile reactors which we can provide to customers, along with operative personnel, to power projects, residential and commercial enterprises, and major development projects. Our vision is to be a commercial and domestic energy supply leader within the U.S. nuclear industry, and to advance U.S. domestic and foreign policy and national security priorities. The mobile, lower-cost and ultra-safe solid core model of our micro-reactor vision will provide a clean energy option that supports initiatives for sustained international engagement and promotes enhanced and more efficient cooperation and assistance in the application of peaceful uses of nuclear energy, science, and technology. We will also drive resources to projects and activities in developing countries of greatest need by supplying energy to areas removed from the grid.

We are developing two advanced portable nuclear micro reactors in technical design and development. The first, **ZEUS**, is a Solid Core Battery Reactor, designed by world-class engineers trained at the University of California—Berkeley, has a fully solid core and utilizes already licensed fuel types, enriched up to 19.75%, where heat is removed solely by thermal conduction. This requires the deployment of high conductivity, high melting materials, and careful materials design. The reactor will use already licensed fuel types, so no new fuel developments are necessary. Reactivity will be controlled with control rods outside of the central core. The generated heat will be conducted from the fuel to the outside of the core via thermal conduction through a thermally conductive material, allowing for the elimination of coolant, creating a far safer reactor than historically developed. Heat will be removed from the outside of the core by recirculated air, which delivers the heat to the gas turbine to produce electricity. The gas turbine will be affixed to the reactor to reduce piping and minimize the size of the plant. The benefit of not incorporating a primary liquid loop reduces the manufacturing costs, and enhances simplicity for modelling, testing, optimizing, and constructing. The secondary loop outside the monolith will be inert gas allowing it to reach high temperatures and direct heating of a gas turbine which will be compact and small. Without coolant, typical reactor pumps and piping can be removed from the design, allowing for further compactness, with the aim being to construct a full core and electricity generating gas turbine within a container meeting International Organization for Standardization specifications. The smaller power core will also mean less neutrons are absorbed by the non-fissionable materials, allowing for longer operational life despite the small core. On March 27, 2024, we filed an application for a U.S. Provisional Patent – “ZEUS”.



**ZEUS Prototype**

Our second reactor in development, *ODIN*, will be a Low-Pressure Coolant Reactor, which uses uranium and zirconium HALEU hydride. The zirconium hydride densely packs hydrogen and so provides substantial moderation. Low pressure “solar” salt (sodium-potassium nitrate eutectic) coolant will be used to minimize the stress on structural components and improve the reliability and service life. The design takes advantage of the natural convection of the coolant for heat transfer to the power conversion cycle at full power, as well as for decay heat removal during reactor shutdown, operating transients, and off-normal conditions. A nitrogen or open-air Brayton cycle will be used for power conversion due to its simplicity, flexibility, and its wide use within the conventional power industry. Reactivity control system design will have high reliability and robustness through minimizing the number of moving parts. In 2025, we plan to formally engage with the NRC and develop and submit our Regulatory Engagement Plan (REP) to the NRC for *ODIN* as well as complete salt irradiation testing to select the coolant for *ODIN*.





### ODIN Prototype

Successful licensing and certification of one of our reactors will enable and accelerate certification and licensing processes for innovative and lower-cost designs in the future. A small portable power source (nuclear power bank) will enable deployment to areas after natural disasters to support first responders, water purification efforts, hydrogen production, or initial construction to regain control of these situations. The possibility of multiple nuclear reactors as part of future emergency response resources is also contemplated.

Both microreactors went through design audits by external institutions in 2023 and 2024, which provided external input and assistance to advance the concepts and provide validation of the design direction and technology utilized so far. The *ODIN* microreactor completed its design audit at INL, where the design was interrogated by 10 engineers and scientists. The design and concept were extremely well received and further guidance was provided to assist our technical team to steer the reactor from its current state through to a licensed product ready for deployment. The external design audit for the *ZEUS* reactor was completed in February 2024, with the more advanced design receiving commendations for its innovative design and simplicity. In 2025, we plan to file for new patents relating to *ZEUS* and work to advance this novel technology in collaboration with the INL utilizing the Gateway for Accelerated Innovation in Nuclear (GAIN) Nuclear Energy voucher award received by us for *ZEUS* in 2024.

Both reactors are expected to begin demonstration and physical test work in early 2025, initially with *ODIN* followed by *ZEUS*, with demonstration work expected to be completed between 2026 and 2027 providing us with working prototypes. The regulatory licensing process for the 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. In December 2024, we announced our execution of a memorandum of understanding with the Idaho Operations Office of the DOE setting forth a framework for the collaboration between our company and the DOE to evaluate the feasibility of siting, construction, commissioning, operation and decommissioning of our *ZEUS* and *ODIN* microreactors at INL. Through this memorandum, we will work with the DOE and BEA, to progress the development, siting, and eventual testing of our innovative microreactor designs.

Furthermore, Michael Norato, Ph.D., an INL and DOE veteran, was appointed as our Director of Nuclear Facilities and Infrastructure in December 2024. Dr. Norato will oversee the construction, development and licensing of our key facilities, including our recently acquired 14,000 sq. ft. Oak Ridge, Tennessee Nuclear Technology Headquarters and future test bed reactor sites for experiments related to our *ZEUS* and *ODIN* microreactors currently in development. He will also lead the establishment of deconversion and fuel processing facilities, helping to further our goal of being a vertically integrated leader in the U.S. nuclear fuel cycle.



**The Company's 14,000 sq. ft., 2-story facility to house the Company's Technology Headquarters on a 1.64-acre land package in the historic Heritage Center Industrial Park in Oak Ridge, Tennessee**

**Our HALEU Fuel Processing Business**

In 2023, we established a subsidiary, HALEU Energy Fuel Inc., to concentrate specifically on creating a domestic fuel processing facility of LEU and HALEU to supply the next generation of advanced nuclear reactors. In February 2023, we were selected as an official founding member of the DOE's new HALEU Consortium to develop the U.S.' domestic capability for the manufacture of HALEU and its processing.

Our commercial and strategic aim for HALEU Energy Fuel is to design, construct and commission a commercial nuclear fuel processing facility to supply fabricated fuel to the next generation of advanced nuclear reactor companies, our own reactors currently under development, other small module reactors (known as SMR companies), the U.S. nuclear industry, the U.S. national laboratories, and the DOE's nuclear fuel needs as necessary. The facility's intended capability is to produce a variety of different fuel forms as required by U.S. industry and its intended customer base, using received fuel from market recognized fuel enrichment sources. Our proposed fuel facilities are intended to form part of an integrated system with LIST, a related-party laser uranium enrichment company with which we have an investment and related collaboration agreement. Our proposed processing activity aligns exactly with the DOE's HALEU fuel mission to return nuclear fuel manufacturing capabilities to the United States.

Our company has identified the potential site and plans to work with the NRC through the NEPA process, which will begin when a federal agency develops a proposal to take major federal action. The proposed project would benefit both our company and the United States. We believe a fuel processing facility could be beneficially complimented by the collaboration with an enrichment company, which we have identified and entered into a partnership agreement with.

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

During the first quarter of 2025, we plan to acquire or lease land for the first CAT II non-TRISO HALEU integrated fuel processing facility in the U.S., and to commence the design work on our fuel processing facility in the first half of 2025, coinciding with engaging the relevant licensing and regulatory bodies to facilitate the facility commissioning. Initial site preparation is scheduled to begin in 2025, with completion of construction and operation occurring early next decade.

### **Our HALEU Fuel Transportation Business**

As we have developed our business, capability deficiencies in the U.S. nuclear industry that would affect the future operation of all SMR and microreactor companies became apparent, such as there exists no method of transporting commercial quantities of HALEU across North America. Our proactive approach to mitigate future impediments to our operations culminated in locating research and technology developed by INL, PNNL and ORNL, that had not been advanced because of budget constraints. On April 3, 2024, we entered into an exclusive patent license agreement ("BEA License") with BEA, and have been working with the groups capable of aiding us in the development of the concept into a complete, governmentally certificated and licensed system proficient in the transportation of enriched fuels.

The BEA 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. Pursuant to the BEA License, we received an exclusive, royalty-bearing license for a U.S. patent that can be used worldwide related to devices and systems used for HALEU transportation. As part of the BEA License, we agreed to pay BEA royalties on net worldwide sales and any sublicense worldwide sales related to the use of this patent as well as certain licensing payments. We also agreed to meet specific performance milestones related to HALEU fuel transportation within the first 48 months of the agreement's effective date. Under the BEA License, we are obligated to reimburse BEA for all costs incurred in the preparation, filing, prosecuting, and maintenance of the licensed patent. The BEA License has an indefinite term and will automatically terminate upon the expiration, abandonment, or other termination of the licensed patent covered by the BEA License. The BEA License may also be terminated immediately by BEA in the event of our default of any material obligations, and we may terminate the agreement at any time if we provide at least three months' written notice to BEA. The BEA License contains customary representations, warranties, and indemnifications of the parties. For further information on the BEA License, see "Intellectual Property" below.

We are seeking to form the first transportation company able to supply all emerging SMR and microreactor companies with the fuel they require at their manufacturing facilities to construct their reactors. We also expect to service the national nuclear laboratories and DOE programs which require HALEU by providing the fuel for their programs. Mobile reactors requiring HALEU for remote military bases are also anticipated, with potential military contacts. During 2025, we plan to acquire land, or an existing transportation business, for our HALEU transportation base of operations.

Our fuel transportation business will build on the work already completed by INL and ORNL to create a high-capacity HALEU transportation package, with 18 inner canisters, combined with a basket design and a borated aluminum flux trap. In September 2024, we signed an agreement with GNS to undertake a wide-ranging project to produce an optimized HALEU transportation system solution based on our exclusively licensed fuel transportation basket design. The GNS agreement encompasses a study for the transport of multiple HALEU nuclear fuel types, including uranium oxide, TRISO particles, uranium-zirconium hydride, uranium mononitride, and salt fuel for molten salt reactors, thus optimizing the quantity of material that can be transported and developing a conceptual package design that will accommodate the new basket design. We are receiving support from two former executives of the largest shipping company in the world who are assisting us in developing a North American transportation company using our licensed or developed technology to deliver (subject to applicable government licensing and certification) nuclear fuel for a wide customer base, including SMR and microreactor companies, national laboratories, military, and DOE programs.

### **Our Business Services and Consulting Business**

The current upsurge in interest in nuclear energy, combined with the increased investment from both private and governmental sources within the nuclear space, as well as the global push for zero carbon technologies, has created a demand for nuclear energy expertise which exceeds supply. The shortage of suitably nuclear-qualified persons has resulted in institutions purchasing nuclear support services and consultancy practices, profiting from the surge in demand and the commensurate increase in costs created by this demand. Nuclear personnel are being headhunted and salaries are increasing as demand outpaces supply. The increased demand in personnel and nuclear related business activity will create increased demand for personnel involved in the licensing and regulator aspects of the industry, exacerbating the difficulty of acquiring the necessary personnel to develop nuclear related businesses. This trend will likely increase, as the next generation of nuclear reactors are progressing towards more mature development stages, requiring greater numbers of experienced personnel, and because nuclear personnel take a long time to educate, qualify, and acquire practical experience.

We have identified this trend as an opportunity for more immediate revenue for our company, and to acquire more expertise to advance our business. 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 expect to start providing nuclear service support and consultation services for the nuclear energy industry in 2025, both domestically and internationally.

As part of our efforts domestically, on December 12, 2024, we entered into a non-binding memorandum of understanding with Digihost Technology Inc. (“Digihost”) to advance the transition to carbon-free energy at Digihost’s 60-megawatt power plant in upstate New York. As part of our collaboration, we expect to provide consulting services to Digihost beginning in the first quarter of 2025 to support the planning and execution of the project, which will include regulatory advice, site assessment, roadmap development and stakeholder engagement.

Immediately after our collaboration, on December 16, 2024, we and Digihost made a joint response submission to the New York State Energy Research and Development Authority (NYSERDA)’s Request for Information (RFI) concerning the development of advanced nuclear energy technologies in New York State. The RFI was initially announced by New York state on November 15, 2024, aiming to gather information and gauge market interest for increased deployment of renewables and promoting the development of advanced nuclear technology such as our **ZEUS** and **ODIN** microreactors in development.

In addition to these rendered services, our company is examining strategic acquisitions to expand our business and consultancy services. We have commenced several material discussions with potential targets for such acquisitions, but as of the date of this Report, we have not entered into any definitive agreements with any such targets.

In combination with our intention to acquire existing revenue generating consultancy businesses, we are focusing on building our own internal nuclear consultation business in coordination with certain outside academic institutions, which we anticipate would require approximately \$2 million over the next twelve months to recruit additional staff and build corresponding infrastructure to be capable of providing these services. 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. Moreover, the outlined expenditures and the timelines are estimations only. These estimates are inherently subject to significant risks and change due to unforeseen circumstances, operational challenges, adjustments in the microreactor development plan and uncertainties associated with the licensing approval process, and other factors beyond our control. 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.

### **The U.S. Nuclear Energy Market**

According to the FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies published by the White House in 2021, the United States has taken numerous steps in recent years to reduce its dependence on carbon-emitting energy sources. The U.S. had previously set a goal to reach a 100% carbon pollution-free electricity system by 2035, and President Biden set a target of a 50 to 52% reduction from 2005 levels in economy-wide net greenhouse gas pollution by 2030, underlining the Biden administration's desire for new energy solutions which are at the core of our business plans. Additionally, the "net zero world" initiative signals the U.S.'s proactive stance in working with countries to lead a global transition to net zero emissions by 2050. While it remains unclear how the Trump administration will view the net world zero initiative, it has already voiced support for the advanced reactor industry and declared its intention to support the build back of the nuclear industry in the United States.

According to an article titled "NEI Survey Shows Even More Interest in Nuclear After Major Policy Actions" released on NEI.org in 2023, in the face of these evolving energy needs, the utility companies that are members of the Nuclear Energy Institute (NEI) are targeting a role for more than 90 gigawatts of nuclear power in support of their decarbonization goals. According to an article titled "U.S. nuclear electricity generation continues to decline as more reactors retire" released on the website of U.S. Energy Information Administration (EIA) in 2022, while the share of U.S. electricity generated by nuclear energy across all sectors in 2021 was similar to its average share of 19% in the previous decade, its average annual capacity factor remained fixed at 92.7% that same year. By comparison, solar photovoltaics' annual capacity factor was 24.6% in the same year, while coal's capacity reached just 49.3%. Further, fuel costs for nuclear versus fossil steam in 2022 were recorded to be just \$0.61 per kilowatt hour versus \$2.46 per kilowatt hour respectively.

According to an article titled "A New Reckoning for Nuclear Energy" released on theatlantic.com in December 2024, the nuclear energy sector is experiencing a revival marked by increased capacity, supportive legislation, and substantial investments from tech giants like Amazon, Google, and Microsoft. These developments underscore nuclear energy's role in potentially delivering abundant, reliable, emissions-free electricity, crucial for combating climate change.

According to an article titled "Biden administration sets plan to triple US nuclear energy capacity by 2050" released on utilitydive.com in November 2024, the Biden administration has laid out an ambitious roadmap to at least triple U.S. nuclear power capacity by 2050, targeting the addition of 200 gigawatts (GW) of new capacity to address rising energy demands and achieve net-zero emissions. This initiative is supported by legislative measures, including the Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy (ADVANCE) Act, signed into law in July 2024, which streamlines regulatory processes and promotes advanced nuclear technologies.

Additionally, the Infrastructure Investment and Jobs Act of 2021 allocates \$6 billion to preserve America's clean nuclear energy infrastructure and \$2.4 billion for advanced nuclear reactors, enhancing the sector's financial stability.



According to a 2023 published McKinsey Report titled “What will it take for nuclear power to meet the climate challenge?”, up to 800 gigawatts of new nuclear power could be necessary to meet net-zero targets. In estimating the nuclear power needed to support the energy transition, we used techno-economic grid modelling to project the overall power mix by 2050. Our scenario—based on “Further Acceleration” estimates from a report titled “Global Energy Perspective 2022” released by McKinsey in 2022 for global energy mix, as well as anticipated supply and demand for power—accounts for potential constraints on scale-up in renewables, such as scarcity of land, raw materials, and transmission limitations. Although our scenario does not rely on a full analysis of grid models and energy-transition scenarios, it does estimate roughly how much additional dispatchable, low-carbon generation will be needed to meet net-zero targets. Modelling reveals that the energy transition could require an additional 400 to 800 gigawatts of new nuclear energy—which could represent up to 10 to 20 percent of future global electricity demand—to meet the need for dispatchable power (that is, not wind and solar) by 2050. 800 gigawatts of net additional nuclear capacity would triple the current nuclear capacity of 413 gigawatts and would require approximately 1,000 gigawatts to be generated by new nuclear facilities, as between 100 gigawatts to 250 gigawatts of current capacity will need to also be replaced. This represents a very large market for our proposed microreactors to participate in, with even a small amount of market share capture leading to significant revenue generating opportunities for our company.

## **Our Vision, Market Opportunity and Key Government Support**

We believe our achievements to date and our business plans are positioning our company to be a leading participant in the U.S. nuclear industry through simultaneously rebuilding and introducing national capabilities to drive the resurgent nuclear energy industry. We further believe that our timing and approach into the industry have been optimal, with insight into national capability deficiencies and an understanding of the difficulties faced by other commercial nuclear energy, particularly microreactor, companies. Almost all microreactor companies have advanced using funds acquired from government grants or awards. Even with private funding, they have been stifled by lack of investor interest because of the long return timelines and high risks.

Despite the early stage of our company, we believe we are competitively differentiated in many ways.

- **Non-Dependent on Government Funding.** Most SMR and microreactor companies are reliant on government grants and financing to progress their concepts. Consequently, their progress can cease once government funding is not available. Currently, we do not rely on government funding to sustain our business operations, though we have already received government grants. While we will seek available government funding opportunities in the future, the absence of government support does not impede our progress in advancing our research, business, or technological developments. Our leadership team possesses extensive experience in successfully securing funding from both private and public sources. Additionally, our investor base includes capital from industry professionals who recognize the immense potential of our company. Notwithstanding the foregoing, our limited operating history and early stage of business makes an evaluation of our business and prospects very difficult, we have a new and unproven technologies and will need to raise additional capital to implement our business plans.
- **Industry Investors.** Our investor base includes a large component of capital raised from nuclear industry professionals who have reviewed our plans, concepts, and technologies, and found our company to have enormous potential. The high proportion of investment from experts in the industry has been an endorsement that has provided investors without a nuclear background with the confidence to invest.
- **Technical Insight.** On the technical front, we have benefited from insight into the problems which affected earlier movers within the nuclear technology space. Large SMR companies have raised billions of dollars for development but have been stalled by the lag in developing or acquiring the fuel necessary to advance their reactors. This led to our investigations into de-risking our own fuel supply by pursuing development and investment into our own fuel processing facility, as well as using more conventional fuel with greater operational history. We believe we have identified certain problems affecting the industry and we are taking early action to surmount potential roadblocks. Our new and unproven technologies will necessitate a significant infusion of additional capital for successful deployment in future. This imperative business requirement has influenced our strategic decision to diversify our operations, with the aim of establishing nearer term revenue streams which we are seeking to initiate prior to the anticipated commercial launch of microreactor technology.
- **Government Contacts.** During 2024, individuals with high placed government service and contacts joined our company. These include (i) John G. Vonglis, the former Chief Financial Officer of the DOE, who joined as our Executive Director of Global Government Affairs, (ii) Eric R. Oesterle, a former Branch Chief for Operating Reactor Licensing at the NRC, who joined as our Head of Microreactor Regulatory Licensing and (iii) David Tiktinsky, a forty year veteran of the NRC, who joined as our Head of Nuclear Regulatory Licensing. In addition, a number of former high-ranking military and government officials with significant experience in nuclear energy sit on our Executive Advisory Board. Our recruitment efforts were complemented by bringing in experts involved in every major part of the nuclear industry, from regulation to laboratories, to technical teams. We believe we will benefit from those government contacts as our company will be afforded access to highly skilled personnel possessing advanced expertise in the energy and nuclear sectors. We expect these individuals to provide support and services to us, thereby facilitating the progression of our ambitions and projects. Furthermore, given the nuclear industry has been comprehensively intertwined with government agencies, the value of access to government and regulatory personnel cannot be overstated. These contacts provide guidance and insights to us, informing us of both conventional and unconventional challenges that warrant our consideration. Such guidance is an invaluable resource, fortifying our endeavors to systematically mitigate risks associated with our business operations.
- **World Class Team.** Our technical team is world class, with simple and realizable reactor concepts that do not require exotic fuels and who are aware of all the difficulties faced by almost every other reactor company who has chosen alternative designs. Our team has a deep knowledge of applicable regulatory requirements surrounding safety, transportation, and decommissioning, and our designs have incorporated all these considerations from the outset.

We believe that the U.S. government is increasingly showing strong support for nuclear energy through various initiatives aimed at advancing nuclear technology, all of which further our business plans and opportunities. This support has taken various forms, as detailed below. Aside from the support for existing nuclear capabilities, all of these initiatives have the potential directly or indirectly to benefit and support our company.

- **ADVANCE Act.** In July 2024, President Biden signed the Advanced Nuclear for Clean Energy (ADVANCE) Act, which passed Congress with overwhelming bipartisan support. Among a host of other transformative actions, the ADVANCE Act includes numerous benefits to the nuclear microreactor segment where we operate. For instance, it requires the NRC to report to Congress within 9 months on the particular licensing requirements for advanced reactor operations, non-electric uses, and co-location with industrial facilities. Within 18 months, the NRC is mandated to implement specific licensing strategies for microreactors, considering their special characteristics and regulatory aspects such as staffing, security, and transportation. These mandates are expected to help provide clarity and more certainty to the nuclear licensing process for companies like ours. The ADVANCE Act also aims to streamline the DOE's process for approving the export of American technology while maintaining strong nuclear non-proliferation standards. It also seeks to update outdated rules that restrict international investment in the U.S. nuclear energy sector, empowering this market to grow and foster innovation. These initiatives could transform the regulatory pathway for our company, potentially reducing costs and resistance, and accelerating the commercialization of its advanced nuclear technology solutions. On a broader scale, the ADVANCE Act lays the foundation for next-generation advanced nuclear energy solutions by dedicating significant investments to expand domestic uranium enrichment capacity and ensuring a steady supply of the HALEU which is essential for advanced reactors.
- **Advanced Reactor Development.** The DOE has been actively supporting the development of advanced nuclear reactor technologies. Through programs like the Advanced Reactor Demonstration Program (ARDP) and the Advanced Reactor Concepts (ARC) program, the U.S. government is providing funding to accelerate the commercialization of next-generation nuclear reactors like our proposed microreactors that are safer, more efficient, and produce less waste.
- **Nuclear Energy Innovation and Modernization Act (NEIMA).** Signed into law in January 2019, this federal legislation aims to streamline the regulatory process for advanced nuclear reactors, making it easier for companies to develop and deploy new nuclear technologies in the United States.
- **Loan Guarantees.** The U.S. government has provided loan guarantees to support the construction of new nuclear power plants. These guarantees help reduce the financial risk associated with building nuclear facilities and encourage private investment in nuclear energy projects.
- **Nuclear Energy Research and Development Funding.** The DOE's Office of Nuclear Energy (ONE) provides funding for research and development projects related to nuclear energy. This includes research on advanced reactor technologies, nuclear fuel cycle options, and innovations in nuclear waste management. While we have not yet taken advantage of government funding, we plan to seek such funding in the future should an appropriate opportunity arise.
- **Public-Private Partnerships.** The U.S. government has encouraged collaboration between the public and private sectors to advance nuclear technology. Initiatives like the GAIN voucher help connect industry partners with national laboratories and expertise to accelerate the development and deployment of advanced nuclear technologies. Our collaboration with INL is an example of this trend. In September 2024, we announced that the DOE granted us a voucher award for the independent assessment of our novel heat exchanger concept for an open-air Brayton cycle in collaboration with INL. The heat exchanger concept provides a turnkey solution for our **ZEUS** microreactor in development.
- **Support for Existing Nuclear Fleet.** The U.S. government recognizes the importance of maintaining the existing fleet of nuclear power plants, which provide a significant portion of the nation's carbon-free electricity. Various measures have been proposed and implemented to ensure the economic viability of these plants and prevent premature closures.
- **Nuclear Energy Export Initiatives.** The U.S. government has been working to promote the export of American nuclear technology and expertise to other countries. This supports global efforts to decarbonize energy systems and strengthen international partnerships in the nuclear energy sector.
- **Department of Energy Non-Defense Programs for Nuclear Energy and Fossil Energy and Carbon Management.** In the federal government's fiscal 2023 budget, \$1.7 billion was allocated for the Office of Nuclear Energy, (NE), and \$62 billion was allocated to the DOE over a five-year period to deliver a more equitable clean energy future. A further \$892 million was allocated to support research and carbon development for carbon management technologies.

## Our Competitive Strengths

We believe we have the following competitive strengths relating to our various business lines:

### *Microreactor Business*

Unlike other nuclear reactor companies, we are seeking to become a vertically integrated company with multiple streams of revenue, a diversified business to hedge against market changes, and greater control over industries supporting microreactor development, such as nuclear fuel and transportation. Our diversified business model will make us highly differentiated from other reactor companies.

Though our reactor designs were selected for specific markets, the type of reactor we are developing brings great advantages to our business. We are focusing on the 1-1.5 megawatt electric (or Mwe) power outputs, currently no advanced reactor design has reached prototype stage within this commercial space. The more developed concepts and reactor companies are almost all catering to different markets, namely civil nuclear power for large cities and towns. The microreactor space by comparison is relatively undeveloped, with no organizations demonstrably ahead in development.

We believe we have an expertise advantage over other companies developing microreactors, as we can recruit the best scientists, engineers and professionals in the world from any country or institution, without being constrained by the available personnel located within certain academic and professional institutions. We had the fortune to connect with professors and scientists from around the world, with the opportunity to work freely on entirely funded projects, with few constraints, drawing from their specializations and expert areas. The technical personnel involved in the current design of our reactors have been involved with the design and development of dozens of different reactors. In addition, as described below under "Intellectual Property", we recently acquired a nuclear reactor cooling technology that we believe will give our microreactor designs a competitive advantage.

We believe, based on our market research, that no SMR and microreactor company is currently developing an integrated non-TRISO CAT II fuel supply chain to produce fuel for their reactors. Our strategy to create the fuel for our own reactors will also position us to supply fuel to the wider nuclear industry and other reactor manufacturers, addressing anticipated significant shortfalls in fuel supply.

A CAT III facility allows for the processing and handling of U235 up to 10% U235 enrichment, there are currently three groups in the U.S. authorized to operate a CAT III facility. A CAT II facility allows for the processing and handling of U235 up to 20% U235 enrichment. We believe, based on our market research, that we are progressing towards being the only non-TRISO CAT II facility operator in the country, giving our business an enormous competitive advantage for both reactor development and establishing multiple sources of future revenue to de-risk our company. Currently, we believe, based on our market research, that no SMR or microreactor has any sales revenue, inhibiting the ability for any reactor company to progress, we are building a different and more robust business model.

#### *Fuel Transportation Business*

We identified a transportation concept which investigated a high capacity HALEU fuel transportation basket design, which has been developed by INL, ORNL and PNNL, and funded by the DOE. The technology was developed around a licensed third-party cask technology to create a full HALEU transportation package, which provided the most advanced solution we identified to address the technological challenge of moving commercial quantities of HALEU fuel around North America. The development of this concept had not been continued by the DOE due to lack of funding. On April 3, 2024, we entered into the BEA License with BEA for this nuclear fuel transportation package, and have been working with the groups capable of aiding us in the development of the concept into a NRC certified and transportation package for the transportation of HALEU materials.

To provide our company further advantage in the fuel transportation space, we recruited two former executives from UPS, the world's largest shipping company, as our consultants who are assisting us in developing a North American transportation company using our licensed or developed technology to deliver (subject to applicable government licensing and certification) fuel for a wide customer base, including SMR and microreactor companies, national laboratories, military, and DOE programs.

#### **Our Challenges**

We are a young company seeking to develop and launch an integrated nuclear energy business. Our efforts face and will continue to face many significant challenges, as our business involves complex nuclear technology, regulatory hurdles, and rapidly shifting market dynamics. These challenges include, but are not limited to, the following:

- Obtaining the necessary permits and licenses for nuclear reactors, facilities and transportation capabilities is time-consuming and expensive. Microreactors must meet stringent safety and environmental standards, and gaining regulatory approval can be a lengthy endeavor. Additionally, ensuring the safety of a microreactor throughout its lifecycle is paramount. Developing, implementing, and maintaining robust safety systems and protocols are critical challenges. Implementing robust security measures to protect against theft, sabotage, or unauthorized access is also critical for both regulatory compliance and public safety.
- Building and operating a microreactor is very capital-intensive. Securing the necessary significant funding and managing costs, including but not limited to operational and maintenance costs, are ongoing challenges for our business.
- The political and regulatory landscape can change, impacting the stability and viability of nuclear projects. International agreements and geopolitical factors can also affect nuclear technology access and export.

#### **Competition**

Our competitors (nearly all of which are significantly larger and have more cash resources than we do) are other power generation systems which provide energy within the 1Mwe-1.5Mwe range. This competition includes fossil fuel power generating units, renewables, long duration storage and other nuclear reactors, including other microreactors. However, as described above in "Competitive Strengths", we believe we are positioned better than our competition to emerge as a leading supplier of carbon-free round the clock energy generation.

### *Traditional Energy Sources*

According to the Statistical Review of World Energy 2024, fossil fuels, comprising oil, coal, and natural gas, accounted for approximately 80% of global energy consumption in 2023. Those traditional energy resources are carbon-intensive, and we expect them to largely be replaced with carbon-free energy over time. Traditional large-scale nuclear power plants, while carbon-free, require significant upfront capital expenditures, have a history of extensive construction times, complex safety systems and do not have business cases apart from utility-scale generation. We believe our carbon-free microreactor technology possesses all the positive attributes of traditional baseload energy and addresses many of the flaws of traditional nuclear power plants, such as large upfront capital costs.

### *Renewables*

According to an article titled “More Than 40% of World’s Electricity Came From Zero-Carbon Sources in 2023” released on Wall Street Journal in August 2024, renewable energy sources like wind and solar made up approximately 17% of total electricity generation, and hydroelectric and nuclear power contributed 24%. Although these sources generate carbon-free power, except for nuclear power, wind and solar are highly intermittent and non-dispatchable, and hydroelectric is seasonal and subject to curtailment. Additionally, since renewables are weather-dependent, they are too unreliable to support certain end-use cases, including mission-critical applications or industrial applications that require extensive on-site, always-available power. Due to their innovative design SMRs and microreactors, such as the VOYGR plant design by NuScale Energy Corporation (NYSE:SMR) (NuScale), can operate as baseload generation, load-follow renewables and/or support key industrial applications.

### *Other Advanced Nuclear Reactors*

There are several reactor technologies that are in various stages of development, such as high temperature gas-cooled reactors, fast reactors, molten salt reactors, fusion technologies, and others, and commercial SMRs are currently operating in China and Russia. These technologies, like ours, are designed to be clean, safe, and highly reliable. However, these technologies have not received regulatory approval in the United States, and many of the technologies do not have the fuel supply infrastructure necessary to succeed. Currently, we believe, based on our market research, that there are no microreactor prototypes, and no other SMR companies other than NuScale – which caters to a different market than our planned market, has a licensed advance reactor.

### **Cambridge Nuclear Energy Centre Collaboration**

In accordance with observed market trends and the surging global demand for nuclear personnel, combined with a shortage of suitably nuclear qualified individuals, we have partnered with Cambridge Nuclear Energy Centre, part of the University of Cambridge, to develop a series of nuclear teaching programs to educate the next generation of qualified nuclear individuals capable of facilitating the growing demand and interest in nuclear energy.

Together with the Chair of Cambridge Nuclear Energy Centre, we will design and provide Master’s and Doctorate programs in Nuclear Energy science, physics and engineering related disciplines, to graduate competent engineers and physicists ready for practical deployment to industry, academia, and research and development destinations. The courses will be designed to provide the candidates with practical learning which can be usefully applied to the current nuclear environment and state of industry.

Our strategy includes the employment of graduating personnel upon completion of their programs, to provide further value to our reactor programs, our fuel processing business, and our business services practice. The programs will serve to provide our company with a stream of individuals competent in nuclear science and engineering, at a time when personnel are increasingly difficult to source; mitigating against potential insufficient staffing caused by the labor demand. Concurrently, we expect to be able to provide our graduates with global and dynamic work opportunities which rival and exceed any other company involved within the nuclear energy space, assisting to retain and attract the best personnel.

## Intellectual Property

### *BEA License*

On April 3, 2024, we entered into a BEA License with Battelle Energy Alliance, LLC, the manager of the INL (BEA), and have been working with the groups capable of aiding us in the development of the concept into a governmentally certificated and licensed product proficient in the transportation of enriched fuels.

Pursuant to the BEA License, we received an exclusive, royalty-bearing license from BEA for a U.S. patent that can be used worldwide related to devices and systems used for HALEU transportation. The BEA License grants us, as the licensee, exclusive rights for the use of this patent and the licensor is not permitted to license the patent to any other parties within the specified scope. As part of the BEA License, we agreed to pay BEA royalties on net worldwide sales and any sublicense worldwide sales related to the use of this patent as well as certain licensing payments. We also agreed to meet specific performance milestones related to HALEU fuel transportation within the first 48 months of the agreement's effective date. Under the BEA License, we are obligated to reimburse BEA for all costs incurred in the preparation, filing, prosecuting, and maintenance of the licensed patent. The BEA License has an indefinite term and will automatically terminate upon the expiration, abandonment, or other termination of the licensed patent covered by the BEA License.

The BEA License may also be terminated immediately by BEA in the event of our default on any material obligations, and we may terminate the BEA License at any time if we provide at least three months' written notice to BEA. The BEA License contains customary representations, warranties, and indemnifications of the parties.

### *Acquisition of ALIP Technology*

On June 21, 2024, we closed an acquisition of a novel annular linear induction pump (ALIP) intellectual property used in small nuclear reactor cooling from noted physicist, research engineer and project manager Carlos O. Maidana, PhD. of Maidana Research.

In connection with the transaction, Dr. Maidana has agreed to collaborate with us 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 DOE grants for the technology aggregating over \$1.37 million in prior phases. Pursuant to a consulting agreement between us and Dr. Maidana, we will provide funding (estimated to be approximately \$350,000) and other resources necessary for the 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 our ODIN microreactor in development. Following the previously announced completion of INL's review of the ODIN microreactor design in February 2024, our engineers have diligently worked to identify relevant technologies to further optimize and simplify ODIN's design. The acquired ALIP technology, to be refined during the SBIR Phase III program, is an example of this strategy in action.

Moreover, we believe there is significant potential for this 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 and fusion energy industries, as well as in the advanced materials, space exploration, marine propulsion, and high-temperature and industrial process sectors.

The SBIR Phase III project acquired by us 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 us all intellectual property rights associated with the ALIP product, his work on the foregoing grants and the proposal for the SBIR Phase III program.

In consideration for the ALIP acquisition, we (i) issued 50,000 shares of common stock to Dr. Maidana and (ii) paid Dr. Maidana cash consideration of \$50,000. Additionally, we agreed to deliver to Dr. Madana an additional (x) 50,000 shares of common stock and (y) cash consideration of \$50,000, contingent upon the successful completion of SBIR Phase III project prior to June 21, 2025, without additional expense to, or funding requirement by, us.

#### *ZEUS Provisional Patent*

On March 27, 2024, we filed an application for a U.S. Provisional patent – “**ZEUS**” to protect certain key design considerations. In July 2024, we filed another application for a U.S. Provisional Patent to secure our newly acquired annual linear induction pump technology (ALIP). As of December 27, 2024, these two patent applications remain under review by the USPTO. Other than that, for competitive reasons, to date we have not filed for any other U.S. or international patents related to our technology and have opted to maintain such technology as a trade secret. This includes our ODIN microreactor and other technologies. However, we have been in consultation with legal counsel to discuss patenting aspects of our developed technology. In addition, we are implementing a strategy to further the research and progress of our microreactor technology to a more finalized form. We believe that developing technology more comprehensively before patenting offers several advantages that can enhance the overall value and protection of the patent. Such advantages include stronger patent claims, reduced risk of invalidity, potential increased market value, minimized prior art, strategic timing, cost savings, better understanding of applications, and trade secrets protection. We plan to file utility or design patents for **ZEUS** and **ODIN** microreactors before March 27, 2025.

Overall, we believe developing technology more comprehensively before patenting it provides our company with certain potential strategic advantages. However, we will balance the advantages of comprehensive development with the risk of potential delays in securing patent protection. We will continue to consult qualified intellectual property counsel so we can make informed decisions regarding the timing of patent filings and the overall protection strategy.

As of December 27, 2024, we have one trademark application “Smaller, Cheaper and Safer” on class 11, pending approval from the United States Patent and Trademark office, and one domain name.

#### *Acquisition of USNC Assets – Patented MMR® Energy System and Pylon Reactor Technology*

On December 18, 2024, we entered into the USNC Agreement with USNC to acquire select nuclear energy technology assets, including USNC’s micro modular nuclear reactor business marketed as a **MMR Energy System**, and transportable fission power system technology business marketed as a **Pylon Transportable Reactor Platform**, including certain contracts, intellectual property rights, demonstration projects and the equity interests of two non-U.S. entities.

The MMR Energy System is a zero-carbon nuclear power plant, integrating one or several standardized micro reactors with a heat storage unit and the adjacent plant for power conversion and utilization. The system, which is under development, could be used to provide carbon-free, high-quality process heat for co-located industrial applications, and for high-efficiency hydrogen production. The MMR Energy System compliments our own ‘**ZEUS**’ and ‘**ODIN**’ microreactors in development. However, whereas ‘**ZEUS**’ and ‘**ODIN**’ are being designed to be portable and produce 1 to 1.5 megawatts thermal (“MWth”) of power, the MMR Energy System is stationary and designed to produce power up to 45 MWth, opening additional potential markets to us. The MMR Energy System is being demonstrated at the Canadian Nuclear Laboratories with Ontario Power Generation and at the University of Illinois at Urbana-Champaign. It was also the first small modular reactor to enter the formal licensing review phase with the Canadian Nuclear Safety Commission.

The Pylon reactor is a compact nuclear reactor designed for versatility in application and deployment. It is designed to provide between 1 MWth and 5MWth of power and can be integrated with modular balance of plants tailored to specific applications including remote terrestrial, marine, and space deployments. The Pylon reactor is scheduled to be demonstrated at the Idaho National Laboratory’s DOME facility by 2027, following USNC’s selection for the National Reactor Innovation Center (NRIC) Front-End Engineering program.

The newly acquired technologies align closely with our intended uses for *ZEUS* and *ODIN*, which are designed for remote, industrial, infrastructural, maritime, and extra-terrestrial applications, including large-scale data and artificial intelligence centers and other energy-intensive operations, positioning us to capitalize on growing financial investment and societal momentum driving advanced nuclear energy technologies on a global scale. We will leverage our world-class technical team to analyze and optimize these technologies, key components, and intellectual property, before integrating them into its operational frameworks and ongoing innovation efforts. We also intend to build upon and strengthen the extensive industry relationships that USNC established during its operations. This includes collaboration with the U.K. government on the MMR reactor under a cost-share program and ensuring continuity in licensing, regulatory, and grant-related efforts wherever feasible. The acquired technology will also enable us to refine and better tailor our offerings within previously announced collaborations and partnerships, including ongoing initiatives.

## **Insurance**

We currently have director & officer liability insurance for our officers and certain directors. We do not carry any key-man life insurance, business liability and other professional liability insurance. Neither have we purchased any property insurance or business interruption insurance. Even if we purchase these kinds of insurance, the insurance may not fully protect us from the financial impact of defending against product liability or professional liability claims that may occur in future. As we are still at the development stage and we have not produced any products yet, we have determined that our current insurance coverage is sufficient for our business operations in the U.S.

## **Research and Development**

As of December 27, 2024, our team has spent approximately 2.8 years on research and development and invested over an aggregate of approximately \$5.4 million on research and development related to *ZEUS* and *ODIN* to develop this technology. Prior to forming our company in 2022, our technical teams were involved in microreactor research and development which has helped accelerate the development of our microreactors. Our current research and development efforts are centered on optimizing reactor dimensions, material compositions, simplifying mechanical systems, and lowering the lifecycle cost of our microreactors and supporting future licensing by the NRC. Our team is also involved in developing new innovative technologies that will represent future business endeavors, such as fuel processing and fuel transportation.

Our research and development team has nearly 150 years of collective experience related to nuclear energy and reactor design, involving scientists and engineers from the University of Berkeley, California, and the University of Cambridge.

On February 14, 2023, we entered into a Strategic Partnership Project (SPP) agreement with INL for an Expert Review Panel of our *ZEUS* microreactor design. The SPP agreement is managed by BEA for the DOE. Over a 6-month period, INL reviewed our *ZEUS*-related technical information related to reactor design, siting, fuel, and decommissioning strategy and organized a Panel Review Workshop to discuss numerous areas of the design. This review panel not only provided recommendations on the current design but also outlined a path forward for further design and collaboration between us and INL.

In addition, we have been awarded 200 hours of subject matter expert (SME) support at INL as part of the National Reactor Innovation Center (NRIC) Resource Team program. NRIC accelerates the demonstration and deployment of advanced nuclear energy through its mission to inspire stakeholders and the public, empower innovators, and deliver successful outcomes. They are charged with and committed to demonstrating advanced reactors by the end of 2025. The work carried out focused on delivering a thermal-hydraulics model to study the temperature in our *ZEUS* reactor core as well as the thermal efficiency of the system, a Monte-Carlo model to study criticality and reactivity coefficients in the reactor core during depletion, and an optimized version of the reactor core including thermal-hydraulics and neutronics.

In the future, we expect our research and development expenses to increase significantly as we continue to accelerate the development of our products, services, and technologies.



## Material Agreements and Current Memoranda of Understanding

### *Services Agreement by and between Nano Nuclear Energy Inc. and Cambridge AtomWorks (2024) Limited (“Cambridge AtomWorks”)*

On August 2, 2023, we entered into a services agreement with Cambridge AtomWorks LLP, which was replaced on July 29, 2024 with an updated services agreement with Cambridge AtomWorks (2024) Limited (or Cambridge AtomWorks). Through Cambridge AtomWorks, our **ODIN** development team, led by Ian Farnan and Eugene Schwageraus, provide services to us related to our **ODIN** microreactor in development. Pursuant to the 2023 agreement, Cambridge AtomWorks conducted a conceptual design feasibility study that analyzed the main design parameters of the ODIN microreactor and the proposed materials used to construct a power plant. These activities have been substantially completed, which led to the execution of the 2024 agreement with AtomWorks.

The responsibilities of Cambridge AtomWorks under the 2024 agreement include progressing the development of the **ODIN** reactor beyond the conceptual stage to achieve the various intermediate stages of development including, but not limited to, those related to optimizing key system components and functions, with the goal of advancing the **ODIN** design to be in the position to begin the formal regulatory application process. The 2024 agreement with Cambridge AtomWorks, like its predecessor agreement, contains customary data security and privacy, confidentiality, indemnification, and intellectual property covenants.

In consideration of the services provided, we will pay Cambridge AtomWorks up to \$4,864,567 in fees and expense reimbursements. These fees are to be paid over a two-year term and are based on specific activities that Cambridge AtomWorks must perform. The 2024 agreement expires two years from the effective date, or until July 25, 2026, whichever is later. During the year ended September 30, 2024, we paid approximately \$586,000 to Cambridge AtomWorks.

### *Memorandum of Understanding by and between Centrus and HALEU Energy*

On March 30, 2023, our subsidiary HALEU Energy entered into a memorandum of understanding with Centrus. Pursuant to this agreement, both parties will explore the possibility of Centrus providing High-Assay Low-Enriched Uranium (HALEU) to HALEU Energy, as needed, to support HALEU Energy’s research, development, and commercialization efforts, for fuel qualification, for our initial test reactor cores and our commercial variant micro reactors. The parties will also (i) explore the compatibility of HALEU Energy’s engineering and technical needs, and Centrus’ technical and manufacturing capabilities to satisfy those engineering and technical needs; (ii) explore Centrus providing engineering and/or advanced manufacturing services to HALEU Energy; and (iii) explore Centrus providing consulting services to HALEU Energy in the areas of fabrication, deconversion, regulatory and licensing, and transportation.

This is a nonbinding and nonexclusive relationship and has customary covenants regarding confidentiality. The term of this agreement ends on December 31, 2025, and may be extended prior to its expiration by mutual agreement of the parties.

### *Strategic Partnership Project Agreement No. 23SP817 between Nano Nuclear Energy Inc. and BEA*

On February 14, 2023, we entered into a Strategic Partnership Project (SPP) agreement with BEA. Pursuant to the SPP agreement, BEA is the management and operating contractor of the INL and is operating as a contractor for the DOE. The purpose of the SPP agreement is to establish an expert design panel for our **ZEUS** microreactor design. This review panel will provide recommendations for the current reactor design and outline a path forward for further design and collaboration between BEA and us. The estimated period of performance for completion of the statement of work (“SOW”) outlined in the SPP agreement was six months from the effective date of this SPP agreement (the later of the date signed by the last signatory or the date on which BEA received advance funding from Nano).

On December 6, 2023, we entered into an amendment to the SPP agreement with BEA, pursuant to which the estimated timeline for completion of the SOW was extended from July 6, 2023 through January 3, 2025 and the term of the SPP agreement may be extended by mutual written agreement of both us and BEA. We expect to seek to extend the term of the SPP in light of the Memorandum of Understanding we signed in December 2024 with DOE as described further below.

On January 19, 2024, we entered into a services agreement with NEEC, effective on January 15, 2024. Pursuant to the NEEC agreement, NEEC will support the design and development of a solid core 1 Mwe nuclear reactor according to certain high-level objectives established by us, and in return, NEEC is entitled to a monthly fee of \$80,000 or less depending on the workload. The NEEC agreement contains customary provisions regarding confidentiality, indemnification, data security, and privacy. The NEEC agreement will expire two years from January 15, 2024 and may be terminated sooner by either party in the event that the other party is in breach, and it may be terminated with or without cause by NEEC upon thirty days’ written notice to us.

*Memorandum of Understanding with Everstar*

In July 2024, we signed a memorandum of understanding with Everstar Inc. to explore the potential of leveraging Everstar’s developing suite of artificial intelligence driven advisory and technology solutions to modernize the regulatory licensing process for our fabrication, deconversion, transportation and microreactor development projects.

*Memorandum of Understanding with Rwanda Atomic Energy Board*

In August 2024, we announced that we had signed a memorandum of understanding with the Rwanda Atomic Energy Board (RAEB). This memorandum establishes a framework under which we will work alongside the RAEB to facilitate the introduction and eventual integration of small modular reactors (SMRs) and microreactors, like our **ZEUS** and **ODIN**, throughout the Republic of Rwanda. We will also be responsible for enabling the development of the country’s entire ecosystem of nuclear energy systems. This includes providing technical assistance, training and educational programs to develop Rwanda’s technical expertise in the nuclear energy industry.

*Memorandum of Understanding with Vert2Grow Energy Solutions*

In November 2024, we announced that we had signed a memorandum of understanding with Vancouver-based start-up Vert2Grow Energy Solutions Inc. (Vert2Grow). Vert2Grow utilizes vertical farming technology provided by Food Security Structures Canada (FSSC). Under this memorandum, we and Vert2Grow aim to explore the integration of our portable microreactor technology with the innovative vertical farming solutions of Vert2Grow and its technology partner FSSC to deliver sustainable power and food production capabilities to remote communities worldwide. The memorandum establishes an initial, two-year exploration period and seeks to address the pressing challenges faced by remote and underserved areas, where access to reliable energy and food supply is limited. By leveraging our advanced reactor systems in development and FSSC’s proprietary controlled-environment agriculture technology, the collaboration will develop a comprehensive framework to deliver innovative solutions that can transform isolated communities, disaster-prone regions, and industrial sites and may eventuate in the execution of one or more definitive agreements between the parties. The collaboration’s initial scope of work over the next several years includes feasibility studies, site selection, pilot project implementation, and community engagement and training.

Founded in 2019, FSSC specializes in pioneering vertical farming systems that are designed for scalability, operational efficiency, and resilience. With advanced automation, energy-efficient lighting, and climate control technologies, FSSC’s growing system enables year-round, high-yield food production in challenging environments.

*Memorandum of Understanding with the DOE Regarding ZEUS and ODIN*

On December 4, 2024, we announced our execution of a memorandum of understanding with the Idaho Operations Office of the DOE setting forth a framework for the collaboration between our company and the DOE to evaluate the feasibility of siting, construction, commissioning, operation and decommissioning of our **ZEUS** and **ODIN** microreactors at INL. Through this memorandum, we will work with the DOE and BEA to progress the development, siting, and eventual testing of our innovative microreactor designs. The memorandum outlines several core activities, such as site evaluations, support of our NRC licensing activities, and the development of operational and security plans, including hazardous material management. We will collaborate with the DOE to assess the suitability of INL’s infrastructure and secure appropriate land-use agreements for supporting the experimental reactors, focusing on site selection, feasibility studies, and thorough security and emergency planning. Each party will be responsible for its own costs, as specified in the memorandum. The memorandum also includes provisions for regulatory coordination, communication strategies, and efforts to ensure environmental compliance under the National Environmental Policy Act (NEPA), with both parties committed to adhering to all applicable local, state, and federal laws.

### *Memorandum of Understanding with the Government of the Togolese Republic*

On December 5, 2024, we announced that we had signed a memorandum of understanding (MOU) with the Government of the Togolese Republic. The memorandum establishes a framework under which we will collaborate with the Togolese government to advance the development and deployment of nuclear reactors, fuel facilities and nuclear material transportation within the territory of Togo. The collaboration aims to supplement Togo's national energy initiatives with advanced nuclear technologies, including microreactors like our **ZEUS** and **ODIN** microreactors, and build a more robust energy ecosystem. Under this memorandum, we will be responsible for evaluating the specific regional needs for energy systems that can support remote mines, industries, data centers, towns, hospitals, and desalination plants throughout the country, without the need to connect to the national grid. In turn, the Togolese government will support our licensing and implementation efforts in Togo, ensuring that the projects meet all international safety, non-proliferation and best practices.

### *Memorandum of Understanding with Digihost*

On December 12, 2024, we entered into a memorandum of understanding with Digihost to advance the transition to carbon-free energy at Digihost's 60-megawatt power plant in upstate New York. This strategic collaboration leverages our cutting-edge advanced nuclear reactor technologies in development to provide clean, reliable, and scalable energy for Digihost's high-tech operations, including AI-driven data centers and digital asset colocation programs. The collaboration signifies a pivotal step toward zero-emission energy solutions for Digihost by transitioning its existing power infrastructure to leverage advanced nuclear energy, enabling us to offer practical strategies and innovative solutions to address energy challenges faced by industries within the state of New York. In the interim, we will assist in optimizing Digihost's existing gas power infrastructure to ensure energy stability while nuclear deployment is developed.

As part of the collaboration, we will also provide consulting services to Digihost to support the planning and execution of the project, which will include regulatory advice, site assessment, roadmap development and stakeholder engagement. The project's timeline aligns with our overall expectations for licensing and deployment, with reactor integration within Digihost's operations targeted for 2031. Before deployment, we and Digihost will conduct a comprehensive site assessment of Digihost's location, initiate site preparations and develop a comprehensive, phased implementation strategy, collaborate on the design, construction, testing, and commissioning of an advanced microreactor power system, and work together on regulatory and licensing activities. This memorandum is non-binding, and we will look to further memorialize our collaboration with Digihost through definitive agreements in the future.

## **Government Regulation**

### ***Microreactor Business***

*Nuclear Safety Regulation.* The commercial use of nuclear technology is regulated in all countries, and approval from national regulatory bodies is required for the design, construction, and operation of nuclear plants, including our proposed microreactors. Nuclear safety regulators primarily consider the safety and robustness of designs of nuclear plants against applicable internal hazards (e.g., component failures and fires) and external hazards (e.g., earthquakes and weather loads such as snow, rain and wind), and also consider the environmental impacts of construction and operations (e.g., water use and preservation of historical sites and animal and plant species) of nuclear plants. Nuclear safety regulation must be addressed on a country-by-country basis, although regulators may collaborate when a design is deployed in multiple countries.

Our microreactor licensing strategy includes two primary goals: (1) obtain regulatory approval using the most efficient licensing pathway by engaging the regulator early and developing a complete and high-quality application; and (2) maintain a standard design for our microreactor in as many markets as possible by pursuing NRC Standard Design Certification that can be completely referenced in customer license applications.

*Nuclear Safety Regulatory Approval in the United States.* For a nuclear plant to be constructed and operated in the United States, an applicant must develop and submit either a construction permit application followed by an operating license application in accordance with 10 CFR Part 50 or submit a combined license application in accordance with 10 CFR Part 52. An applicant utilizing either licensing pathway can incorporate by reference a design certification thus limiting the scope of its license application to site-specific information and operational programs. A customer desiring to construct and operate one of our **ZEUS** or **ODIN** microreactors can increase the efficiency of NRC regulatory approval by incorporating by reference the NRC standard design certification for one of our microreactors into its application. In accordance with our licensing strategy, we expect to obtain NRC approval and certification of our standard microreactor design for incorporation by reference into prospective customer license applications. The design certification process ensures that NRC review of the design is final and that prospective customers that use our NRC standard design certification without modification will only need to support NRC review of site-specific design features (e.g., physical security systems, water intake structures, on-site emergency plan), operational programs (e.g., maintenance, emergency preparedness), and environmental impacts. Through design finality, the NRC will not re-review our microreactor design.

*Nuclear Safety Regulatory Approval Internationally.* We are evaluating plans for pursuing international markets and engaging with international regulators with respect to our proposed microreactors. If we pursue markets outside of the U.S., we will assess all international regulatory requirements which may be applicable to our business.

*Other Regulations.* In addition to nuclear safety regulations, we are also subject to such other nuclear regulatory controls as nuclear material safeguards and non-proliferation restrictions, and liability insurance regimes (e.g., Price-Andersen Act, the 1960 Paris Convention, the 1963 Vienna Convention, and the 1997 Convention on Supplementary Compensation). We only plan to sell our microreactors in jurisdictions where nuclear liability is exclusively channeled to the plant operator.

Customers purchasing our microreactors must also obtain the permits, licenses, and insurance required for the jurisdiction where the facility will be located. In the U.S., a nuclear plant developer must obtain an NRC construction permit and operating license issued pursuant to 10 CFR Part 50 or a combined construction and operating license issued pursuant to 10 CFR Part 52. Other U.S. federal permits or licenses required for a nuclear plant may include those issued by the Army Corps of Engineers; the Federal Aviation Administration; the U.S. Department of Transportation; and the U.S. Environmental Protection Agency. State or local regulators may also require permits or licenses for a nuclear plant, including a National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges from Construction Activities and to Construct a Sanitary Wastewater, Wastewater Treatment facility; Section 401 Water Quality Certification; Well Permits; Solid Waste Handling Permit; and appropriate building permits.

*Export Controls.* Our microreactor business is subject to, and complies with, stringent U.S. import and export control laws, including the Export Administration Regulations (EAR) regulations from the Bureau of Industry and Security which is part of the U.S. Department of Commerce, and regulations issued by the DOE. The regulations exist to advance the national security and foreign policy interests of the U.S. and to further its nonproliferation policies. Nuclear technology, also known as technical data, is controlled by 10 CFR Part 810, under the regulations of the DOE. Nuclear hardware and codes specifically designed or modified for use in a nuclear reactor are controlled by the NRC under 10 CFR Part 110. We will work to ensure that strict internal control and measures are implemented to comply with export control regulations. Appendix A to 10 CFR Part 810 provides a list of countries that are considered Generally Authorized meaning they are considered to be non-sensitive. Countries not on this list are required to be specifically authorized prior to sharing any nuclear technology. Under Part 110, the NRC regulates the export or import of nuclear hardware, material and code, following the same sensitive countries versus non sensitive countries' regulatory structure embedded in 10 CFR Part 810.

### ***Fuel Processing and Transportation Businesses***

*Nuclear Safety Regulation.* The commercial nuclear fuel industry is heavily regulated in the United States and regulatory approval is required for the design, safety systems and operation of a nuclear fuel facility such as our proposed HALEU fuel processing facility. Nuclear safety regulators from the NRC consider safety related impacts to the facility from external events (e.g., wildfires, impacts from nearby facilities), natural phenomena hazards (e.g., seismic events, wind, snow, floods), fire protection, environmental conditions and dynamic effects associated with operations, chemical protection, emergency response, criticality control, and instrumentation and control. The facility license application must identify items relied on for safety in order to limit potential radiation and chemical related impacts to workers, the public, and the environment.

A nuclear fuel facility must also consider the impacts of the facility on the environment. An environmental report will be prepared which describes the impact of constructing the facility on the environment; adverse environmental impacts that cannot be avoided; alternatives to the proposed facility construction; the relationship between short-term uses and enhancement of long-term productivity; and irreversible commitments of resources. The NRC will consider environmental impacts in its licensing decision making process. The NRC will need to make an environmental related finding of no significant impact (FONSI) prior to issuance of a license for the fuel facility.

Our regulatory licensing strategy is to design a HALEU nuclear fuel processing facility using proven technology, processes and safety systems and engage the NRC early in the license application development process. Our intent is to produce a high-quality application that can be reviewed and approved by the NRC in the minimum amount of time.

On the fuel transportation side, we are evaluating the availability and use of comprehensive nuclear material packaging. The use of NRC certified transportation packages under applicable federal rules and meeting the appropriate Department of Transportation regulatory requirements for radioactive materials are necessary for nuclear fuel shipments within the United States. Additionally, international shipping requirements which follow IAEA regulations (and those of the recipient country), are needed for any international transport of nuclear fuel.

*Nuclear Safety Regulatory Approval in the United States.* In order for a nuclear fuel facility to be constructed and operated, a license application and supporting documentation needs to be prepared and submitted for review and approval by NRC. The safety basis for the facility is documented in an integrated safety analysis (ISA). An ISA is a systematic examination of the facility's processes, equipment, structures, and personnel activities to ensure that all relevant hazards that could result in unacceptable consequences have been adequately evaluated and appropriate protective measures have been identified. NRC fuel cycle facilities are similar to chemical processing plants and ISA techniques that have been applied in the chemical industry are generally applicable to a nuclear fuel facility. A document that contains a summary of the ISA will be submitted to the NRC with the license application.

The license application submitted to the NRC will also include (a) an overview of the site and processes; (b) the licensee's organization, (c) the ISA methodology to be used, (d) a radiation protection program, (e) a nuclear criticality safety program; (f) a chemical process safety program; (g) a fire safety program; (h) an emergency management plan; (i) an environmental protection description; (j) a decommissioning plan; (k) a management measures program; (l) a fundamental nuclear material control and accounting plan; and (m) a physical protection plan.

An environmental report detailing the potential impacts of the facility (and alternatives) will also be prepared and submitted to the NRC for review. We expect that the NRC will complete its review of our license application and environmental report within 24-months. We believe that the NRC review time can be compressed by submitting a high-quality application for a facility using proven technology and following guidance documents prepared by the NRC. Communication with the NRC both during the pre-application period and during the review will help facilitate a successful licensing review.

After obtaining a license from the NRC, we will construct the facility in an expeditious manner. After construction is completed, it is expected that the NRC will perform an operational readiness review of the facility and grant NANO an authorization to operate.

To transport the fuel within the United States, NRC certified transportation packages will be used. If necessary, the package certificate of compliance will be amended by the package certificate holder in order to add our fabricated fuel as an authorized content for the transportation package. The certificate of compliance amendment request, if needed, will follow the appropriate regulatory requirements in the United States that are contained in 10 CFR Part 71.

*Nuclear Safety Regulatory Approval Internationally.* Since the fuel facility is being licensed to produce our fuel in the United States by the NRC, no international regulatory approvals will be needed.

Shipping of the fuel will occur in the United State using NRC certified transportation packages and following the appropriate regulatory requirements that are necessary for fuel shipments. For international shipments, additional shipping approvals will be needed depending on the country that the fuel will be shipped to. International shipping requirements will be addressed by following IAEA transportation requirements for transport of nuclear fuel and the recipient’s country’s requirements.

*Other Regulation.* In addition to nuclear safety regulations, our fuel processing and transportation businesses are subject to other nuclear regulatory controls such as special nuclear material safeguards and non-proliferation restrictions. Other U.S. federal and state permits such as air quality, liquid effluent controls, and building permits will be required depending on the fuel facility design (types and quantity of waste materials produced) and the state in which the facility will be located which has not yet been determined.

*Export controls.* Exports related to our fuel processing facility and products are controlled by the NRC under applicable federal regulations. Nuclear fuel processing plant equipment and components are under NRC’s export licensing authority as per Appendix O to 10 CFR Part 110. This includes items that are considered especially designed for the fabrication of nuclear fuel including equipment that: (a) directly processes or controls the production flow of nuclear material; (b) seal the nuclear material with cladding; (c) check the integrity of cladding; (d) check the finished treatment of the sealed fuel; or (e) is used for assembling reactor fuel elements. This section of the regulations also includes equipment or systems of equipment specifically designed or prepared for use in a fuel processing plant. Additionally, 10 CFR 110.9a states that the export control of special nuclear material is also controlled by the NRC.

Many types of controls are required to ensure compliance with NRC export control regulations. For example, 10 CFR 110.28 lists embargoed destinations for exporting nuclear materials and technology. An application to the NRC for a specific license to export special nuclear material will be required. The specific license is issued on a case-by-case basis to a single specified person or entity which submits and is legally responsible for the proposed export transactions as described on NRC Form 7 application submitted to the NRC.

### Human Capital Resources

As of December 27, 2024, we had five full time employees and had 39 independent contractors with an aggregate of 62 advanced degrees, including 31 master’s degrees in engineering and science, 17 PhDs and two JDs (Juris Doctors - Doctors of Law). We have utilized independent contractor relationships with our senior executive officers, except for Jay Jiang Yu, with whom we have an employment agreement, that became effective on October 1, 2024, but we intend to enter into formal employment agreements with our other senior executive officers in the future.

The following table provides a breakdown of our staff by function as of December 27, 2024.

| <b>Function</b>                         | <b>Number of Staff</b> | <b>% of Total</b> |
|---|------------------------|-------------------|
| Management                              | 5                      | 11.36%            |
| Research and Development <sup>(1)</sup> | 16                     | 36.36%            |
| Business Operation <sup>(2)</sup>       | 21                     | 47.73%            |
| Administration                          | 2                      | 4.55%             |
| <b>Total</b>                            | <b>44</b>              | <b>100%</b>       |

(1) There was an increase of headcounts for a total of nine staff, or approximately 129% of the total research and development personnel in the research and development department in 2024 compared to the same period in 2023. The above-mentioned increases were due to the recruitment of new staff for our research and development.

(2) There was an increase of headcounts for a total of eight staff, or approximately 62% of the business operation personnel in the business operation department in 2024 compared to the same period in 2023. The above-mentioned increases were due to the recruitment of new staff for our business operations.

Our workforce operates under a hybrid model that integrates both in-office and remote work arrangements. We have a seasoned leadership team with nearly 150 years of cumulative experience in the nuclear industry. Our management team places significant focus and attention on matters concerning our human capital assets, particularly on the specific industry and technical knowledge that are required to implement our nuclear energy-focused business plan. Accordingly, we regularly review staff development and succession plans for each of our functions to identify and develop our pipeline of talent.

We believe we offer our staff competitive compensation packages and an environment that encourages self-development and, as a result, have generally been able to attract and retain qualified personnel and maintain a stable core management team. Our staff are not represented by a labor organization or covered by a collective bargaining agreement. We believe that we maintain a good working relationship with our staff and to date, we have not experienced any labor disputes.

### **Description of Properties**

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 is effective on April 1, 2024 and has a term ending on July 31, 2031.

In August 2024, we purchased a 1.64-acre land package in the historic Heritage Center Industrial Park in Oak Ridge, Tennessee for \$1.7 million. The purchase includes a 14,000 sq. ft., 2-story building to house our Nuclear Technology Headquarters. Situated in a world-class location for innovative nuclear technology research and development, this facility will serve as the central hub for our advanced nuclear technology design and engineering capabilities. The Nuclear Technology Headquarters is near the Oak Ridge National Laboratory, the Spallation Neutron Source, the National Transportation Research Center, and The University of Tennessee's Center of Excellence in Engineering. We expect to grow the number of personnel working at the facility over the next year and expect to ultimately employ up to 30 personnel at the facility.

We believe the above-mentioned facilities and offices are adequate and suitable for our current needs and that, should it be needed, suitable additional or alternative space will be available to accommodate any such expansion of our operations.

### **Corporate History and Corporate Structure**

We were incorporated under the laws of the State of Nevada on February 8, 2022. We are primarily engaged in the design and development of mobile, easily deployable microreactors, the development of a commercial CAT II facility for fuel processing, and the creation of a commercial transportation technology and business, with the capacity to move fuel enriched up to 19.75% U235 across North America.

HALEU Energy Fuel Inc. (which we refer to herein as HALEU Energy), incorporated on August 30, 2022 under the laws of Nevada, is our wholly-owned subsidiary. Through HALEU Energy, we are seeking to develop a domestic HALEU fuel processing facility to supply the next generation of advanced nuclear reactors.

American Uranium Inc. (which we refer to herein as American Uranium), incorporated on February 9, 2022 under the laws of Nevada, is our wholly-owned subsidiary. Through American Uranium, we are engaged in the acquisition, exploration and development of uranium mineral resource properties in the U.S. and internationally. American Uranium has not commenced operation as of the date of this Report.

Advanced Fuel Transportation Inc. (which we refer to herein as Advanced Fuel Transportation), incorporated on June 21, 2023 under the laws of Nevada, is our wholly owned subsidiary. Through Advanced Fuel Transportation, we plan to manufacture a licensed high-capacity HALEU transportation system and produce a governmentally licensed and permitted high-capacity HALEU transportation system, capable of moving commercial quantities of HALEU fuel around North America. Advanced Fuel Transportation has not commenced operation as of the date of this Report.

Nano Nuclear Space Inc. (which we refer to herein as Nano Nuclear Space), incorporated on July 24, 2024 under the laws of Nevada, is our wholly-owned subsidiary. Through Nano Nuclear Space, we are seeking to explore the potential commercial applications of our developing micronuclear reactor technology in space, including the ALIP technology. In September 2024, Dr. Carlos Maidana was appointed to lead our Nano Nuclear Space activities.

#### **Available Information**

Our website is [www.nanonuclearenergy.com](http://www.nanonuclearenergy.com). Access to copies of our SEC filings, corporate governance information, and other items that may be material or of interest to our investors is available via our website under “Financial Information”. The contents of our website are not incorporated by reference into this Report or in any other report or document we file with the SEC, and any references to our website are intended to be inactive textual references only. All information that we have filed with the SEC can also be accessed through the SEC’s website at [www.sec.gov](http://www.sec.gov).

#### **ITEM 1A. Risk Factors**

*Investing in our securities involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information contained in this Report, before deciding to invest in our securities. If any of the following risks materialize, our business, financial condition, results of operation and prospects will likely be materially and adversely affected. In that event, the market price of our common stock could decline, and you could lose all or part of your investment.*

##### **Risks Related to Our Industry and Business**

*We have incurred losses and have not generated any revenue since our inception. We anticipate that we will continue to incur losses, and expect that we will not generate revenue, for the foreseeable future.*

We have incurred significant operating losses since inception and have an accumulated deficit of \$17.4 million as of September 30, 2024 and had negative operating cash flow for the year ended September 30, 2024. We expect that operating losses and negative cash flows will increase in the coming years because of additional costs and expenses related to our research and development (which we refer to herein as R&D), business development activities and our status as a publicly traded company.

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 and/or other lines of business. As we have incurred losses and experienced negative operating cash flows since our inception, and accordingly we have undertaken equity financing from investors to satisfy our funding needs, and we will consider applications for government grants; however, we may not raise adequate funding to offset our expenses and losses. Moreover, we may encounter unforeseen expenses, difficulties, complications, delays, and other unknown factors that may adversely affect our business. The magnitude of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate and grow revenue. We cannot predict the outcome of the actions to generate liquidity to fund our operations, whether such actions would generate the expected liquidity to fund our operations as currently planned or whether the costs of such actions will be available on reasonable terms or at all. 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. Our prior losses and expected future losses have had and may continue to have adverse effects on our stockholders’ equity (deficit) and working capital and may lead to the failure of our business.



***We are an early-stage company in an emerging market with an unproven business model, new and unproven technologies, and a short operating history, which makes it difficult to evaluate our current business and prospects and may increase the risk of your investment.***

We only have a limited operating history upon which to base an evaluation of our current and future business prospects. We were founded in February 2022 and are currently in the process of developing our nuclear microreactors and other lines of business as more fully described in the “*Business*” section of this Report. We anticipate that it will take several years for us to commence generating meaningful revenues. Moreover, we will be required to make significant expenditures over the near and long term just to achieve any level of revenues.

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

We estimate that our microreactor demonstration work will be conducted between 2025 and 2027, our microreactor licensing application will be processed between 2026 and 2029, and our microreactors will be launched between 2030 and 2031. We also plan on providing nuclear service support and consultation services for the expanding and resurgent nuclear energy industry in 2025, both domestically and internationally. As part of our efforts domestically, following our collaboration with Digihost Technology Inc. (“Digihost”) in December 2024, we expect to provide consulting services to Digihost beginning in the first quarter of 2025. These services will support the planning and execution of the Digihost project and will encompass regulatory advice, site assessment, roadmap development, and stakeholder engagement. In addition to these rendered services, we are examining strategic acquisitions to expand our business and consultancy services. We have commenced several material discussions with potential targets for such acquisitions, but as of the date of this Report, we have not entered into any definitive agreements for such acquisitions. In combination with our intention to acquire existing revenue generating consultancy businesses, we are focusing on building our own internal nuclear consultation business in coordination with certain outside academic institutions, which we anticipate would require approximately \$2 million over the next twelve months to recruit additional staff and build corresponding infrastructure to be capable of providing these services. Notwithstanding the foregoing, the outlined expenditures and our anticipated timelines are estimations only. These estimates are inherently subject to significant risks and change due to unforeseen circumstances, operational challenges, adjustments in the development plans for our microreactors and other technologies and uncertainties associated with the governmental licensing approval process, and other factors beyond our control. 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.

Our limited operating history and early stage of our business makes an evaluation of our business and prospects difficult. You must consider our business and prospects in light of the risks and difficulties we encounter as an early-stage company in the new and rapidly evolving market of the nuclear energy industry. These risks and difficulties include, but are not limited to, the following:

- Obtaining the necessary permits and licenses can be a lengthy and complex process, subject to rigorous safety and environmental regulations. Delays or denials in obtaining these approvals can significantly impact a project’s timeline and cost.
- Ensuring the safety of the reactor during operation and in case of accidents is paramount. Microreactors must be designed with robust safety features to prevent accidents, and emergency response plans must be in place to mitigate any potential incidents.
- Security concerns, including the risk of theft or sabotage, need to be addressed through physical security measures and cybersecurity protocols.

- Microreactor and fuel fabrication projects are very capital-intensive, and securing adequate financing can be a significant hurdle. Economic risks related to cost overruns, construction delays, or market uncertainties must be managed effectively.
- The demand for microreactor-generated power may be uncertain, especially in the early stages of the business. Market fluctuations and changing energy policies can affect the profitability of the venture.
- Microreactors rely on specialized components and materials, which may have limited availability or long lead times. Supply chain disruptions can impact project timelines and costs.
- Addressing environmental concerns, including radioactive waste management and minimizing environmental impact, is essential for regulatory compliance and public acceptance. Proper disposal and management of radioactive waste and decommissioning plans need to be in place from the outset. Failing to account for these end-of-life considerations can lead to significant liabilities. Additionally, any adverse environmental impact can lead to public opposition and regulatory penalties.
- Public perception of nuclear energy and technology can be a challenge. Overcoming public skepticism or opposition and gaining social acceptance for the microreactor project is important.

We may not be able to successfully address any of these risks or others. Failure to adequately do so could seriously harm our business and cause our operating results to suffer.

Our nuclear microreactors are still at the development stage and have not been put into production yet. Developing, producing, and commercializing nuclear reactors is a complex and challenging endeavor due to various technical, regulatory, financial, and public perception obstacles, which may adversely and materially affect our business, financial condition and results of operation. No assurances can be given that we will be able to develop and commercialize our microreactors and other technologies on the timelines we currently anticipate, or at all, and our failure to do so would likely lead to the loss of your investment in our company.

***Our business plans will require us to raise substantial additional amounts of capital. Future capital needs will require us to sell additional equity or debt securities that will dilute or subordinate the rights of our common stockholders. In addition, we may be unable to secure government grants as part of our funding strategy.***

Our business plan is very costly. To develop and implement our businesses as currently planned, we will need to raise substantial amounts of additional capital, potentially hundreds of millions of dollars. We expect that we will need to make substantial investments in research and development of our products and technologies and other substantial investments before we can generate meaningful revenues. Moreover, our costs and expenses may be even greater than currently anticipated, and there may be investments or expenses that are presently unforeseen. In any case, we may be unable to raise sufficient capital to fund these costs and achieve significant revenue generation. In addition, given the relatively early stage of our company, our future capital requirements are also difficult to predict with precision, and our actual capital requirements may differ substantially from those we currently anticipate.

As a result, we will need to seek equity or debt financing to finance a large portion of our future capital requirements. Such financing might not be available to us when needed or on terms that are acceptable, or at all. We will likely issue additional equity securities and may issue debt securities or otherwise incur debt in the future to fund our business plan. If we issue equity or convertible debt securities to raise additional funds, our existing stockholders will experience dilution, and the new equity (including preferred equity) or debt securities or other indebtedness may have rights, preferences, and privileges senior to those of our existing stockholders. If we incur additional debt, it may increase our leverage relative to our earnings or to our equity capitalization, requiring us to pay additional interest expenses.

Our ability to obtain the necessary capital in the form of equity or debt to carry out our business plan is subject to several risks, including general economic and market conditions, as well as investor sentiment regarding our planned business. These factors may make the timing, amount, terms and conditions of any such financing unattractive or unavailable to us. The prevailing macroeconomic environment may increase our cost of financing or make it more difficult to raise additional capital on favorable terms, if at all. If we are unable to raise sufficient capital, we may have to significantly reduce our spending and/or delay or cancel our planned activities.

We may also seek to raise additional funds through collaborations and licensing arrangements. These arrangements, even if we are able to secure them, may require us to relinquish some rights to our technologies, or to grant licenses on terms that are not favorable to us.

Finally, we plan to apply for government funding in the form of grants or other funding from agencies such as the DOE. We may not receive such funding for a variety of reasons, including the size of our company and the government's assessment of our prospects. Even if we do receive such funding, the government could condition such funding on contractual provisions such as granting the government rights to our technology or products. Moreover, federal funding is subject to at least annual Congressional appropriations, which may not be forthcoming. The federal budget process is complex — the budget justification and Presidential budget requests are often incomplete; Congress may appropriate different amounts than those requested; and the DOE has varying degrees of discretion to reprogram or transfer appropriated funds. Nonetheless, to the extent Presidential budget requests or DOE budget justifications result in a shift of Congressional appropriations away from SMR funding generally or projects we are developing specifically, those shifts could materially and adversely affect the amount of DOE funding available to us and our business.

As a result of the foregoing, we might not be able to obtain any financing, and we might not have sufficient capital to conduct our business as projected, both of which could mean that we would be forced to curtail or discontinue our operations. If we cannot raise additional capital when we need or want to, our operations and prospects could be negatively affected, and our business could fail.

***We and our officers and directors are presently parties to securities law and fiduciary duty lawsuits relating to our public statements made since our initial public offering. Our reputation may be damaged by these suits, and if we are unable to have them dismissed or should we receive adverse outcomes, our business and results of operations may suffer, including as a result of our indemnification obligations to our directors and officers.***

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 our business and prospects, including our progress toward microreactor development. The plaintiff seeks to represent a class of certain persons who purchased or otherwise acquired our common stock during the period from May 8, 2024 through July 18, 2024 and seeks unspecified damages and other relief. On October 28, 2024, the court entered an order appointing Hongyu Xie as lead plaintiff. On November 4, 2024, the court entered a scheduling order for the filing of lead plaintiff's amended complaint and a briefing schedule for our anticipated motion to dismiss, under which lead plaintiff must file an amended complaint by January 6, 2025, and we must file a motion to dismiss by February 21, 2025. We dispute the allegations in the complaint and intend to defend the case vigorously. The case is at an early stage and we cannot reasonably estimate the amount of any potential financial loss or cost that could result from the lawsuit.

In addition, on August 23, 2024, a putative shareholder derivative lawsuit was filed purportedly on behalf of our company, as nominal defendant, against certain of our directors and officers in the Eighth Judicial District Court of Clark County, Nevada, captioned William Latza, Derivatively on Behalf of Nano Nuclear, Inc. v. James Walker, et al., No. A-24-900423-C. The complaint asserted claims for alleged breach of fiduciary duties and corporate waste, among others, related to statements concerning our business and prospects. On November 15, 2024, we filed a motion to dismiss pursuant to Rule 23.1 of the Nevada Rules of Civil Procedure based on plaintiff's lack of standing, and the director and officer defendants filed a motion to dismiss pursuant to Rule 12(b)(5) of the Nevada Rules of Civil Procedure based on plaintiff's failure to state a claim upon which relief can be granted. On December 20, 2024, plaintiff filed an amended complaint. The amended complaint alleges claims for alleged breach of fiduciary duties, corporate waste, market manipulation, and racketeering, among others, related to our business and prospects, including our progress toward microreactor development, the qualifications of our management, and our investment in LIS Technologies Inc.

On behalf of our company, the plaintiff seeks damages from the director and officer defendants and an order directing our company to take actions to reform and improve corporate governance and internal procedures. The director and officer defendants deny all allegations of liability and intend to vigorously defend against all claims. Given the preliminary stage of the lawsuit and the inherent uncertainties of litigation, we cannot determine with certainty the outcome of the case at this time.

Ongoing securities law and fiduciary duty lawsuits may divert significant financial and human resources away from our core business operations, increasing legal expenses and reducing available capital for other strategic initiatives. If the lawsuits result in adverse outcomes, such as judgments or settlements, we could face substantial monetary damages, penalties, or fines, which could negatively impact our financial position, cash flow, and overall business operations. These lawsuits may harm our reputation with investors, suppliers, and business partners. Even if we successfully defend against the claims, the mere existence of these lawsuits may erode confidence in our management, corporate governance, and financial reporting. The uncertainty surrounding the outcome of these lawsuits could create volatility in our stock price, leading to a decrease in investor confidence and possible difficulties in raising future capital.

Our officers and directors, who are critical to our leadership and decision-making, may be distracted by these lawsuits, which could lead to delays or inefficiencies in executing our business strategy. If these lawsuits persist or lead to unfavorable publicity, it may become more challenging to attract and retain qualified employees, including key executives, due to perceived instability or legal risk associated with our company.

The current lawsuits may encourage other parties to file additional claims or lawsuits, increasing our legal risks and further burdening our resources. The case is still at an early stage and we cannot reasonably estimate the amount of any potential financial loss or cost that could result from this lawsuit. If we are unable to have them dismissed or should we receive adverse outcomes, our business and results of operations may suffer. The lawsuits may prompt increased scrutiny from regulatory authorities, leading to additional investigations, fines, or compliance requirements, which could further affect our business.

Further, under certain circumstances, we may have contractual or other legal obligations to indemnify and to incur legal expenses on behalf of investors, directors, officers, employees, or other third parties. Our business contractual and legal obligations related to indemnification and the coverage of legal expenses for investors, directors, officers, employees, and other third parties are critical components of our risk management and corporate governance. These obligations are typically outlined in various agreements, contracts, and corporate bylaws.

In our company, the key aspects of indemnification will be included in our directors and officers (D&O) insurance, our corporate governing documents, and investor agreements and other relevant arrangements. Nuclear companies often purchase director and officer insurance policies to indemnify their directors and officers against personal liability for actions taken in their roles. These policies provide financial protection for individuals in the event of lawsuits, regulatory actions, or other legal proceedings related to their corporate duties. The corporate governing documents may include provisions that obligate our company to indemnify its directors, officers, and sometimes employees to the extent allowed by law, with some conditions or limitations on indemnification as applicable. In cases where investors, such as venture capitalists or private equity firms, are involved, investment agreements may include indemnification clauses that protect the investors from certain liabilities related to their investment in our company. In our agreements with third parties, such as suppliers, partners, or service providers, indemnification provisions may also be included to specify who is responsible for indemnifying the other party in the event of specified breaches, disputes, or liabilities.

We may also be required to cover the legal expenses and other costs on behalf of individuals or third parties incurred during any applicable legal proceedings, which may divest our company's resources and the management's attention, thus materially and adversely affect our business, financial condition and results of operations and result in our inability to establish and grow our business.

***The failure of production and commercialization of nuclear micro reactors as planned will adversely and materially affect our business, financial condition, and result of operations.***

We are in the process of developing the next-generation advanced nuclear microreactors, **ZEUS**, a solid core battery reactor, and **ODIN**, a low-pressure salt coolant reactor. With these products, we are advancing the development of the next generation of portable, on-demand capable, advanced nuclear microreactors. Through a collaboration of our world-renowned nuclear scientists and engineers, the national laboratories, and government support, we believe our reactors will have the potential to impact the global energy landscape. Our goal is to commercially launch one of these products by the year 2030 or 2031. If our plan to develop, manufacture or commercialize these products is delayed, suspended, interrupted, or cancelled for whatever reason, our business, financial condition, and results of operations will be adversely and materially disrupted, and the value of our securities may significantly decline or become worthless.

*We are in the process of developing a domestic HALEU fuel processing facility to supply the next generation of advanced nuclear reactors. The failure of completion and operation of such facility as planned will adversely and materially affect our business, financial condition, and result of operations.*

Building a nuclear fuel processing facility to produce commercial nuclear fuel for SMRs and microreactor companies involves a highly specialized and regulated process. There will be specific challenges at each stage of development, including but not limited to the following:

- Obtaining the necessary licenses and permits from regulatory authorities can be a complex and time-consuming process. Compliance with stringent safety, security, and environmental regulations is crucial.
- Ensuring the safety and security of the facility and the nuclear materials within it is of utmost importance. Robust safety measures and security protocols must be implemented to prevent accidents, theft, or unauthorized access.
- Fabricating nuclear fuel assemblies and components requires specialized knowledge and expertise in nuclear materials, metallurgy, and manufacturing processes. Recruiting and retaining a skilled workforce can be a challenge.
- Maintaining strict quality control and assurance processes is essential to ensure the reliability and safety of the nuclear fuel. Any defects or substandard materials can have serious consequences.
- Building and operating a nuclear fuel processing facility can be capital-intensive. Managing costs, including construction, operational, and maintenance expenses, is essential for the facility's financial viability.
- Construction delays, regulatory approvals, and unforeseen technical challenges can extend the timeline for facility development, potentially affecting market entry and revenue generation.
- The demand for nuclear fuel can fluctuate based on the deployment of SMRs and Microreactors. Competition from other fuel suppliers and alternative energy sources can also affect market share and profitability.

In 2023, we established a subsidiary, HALEU Energy, to concentrate specifically on creating a domestic HALEU fuel processing facility to supply the next generation of advanced nuclear reactors. In February 2023, we were selected as an official founding member of the DOE's new HALEU Consortium to develop the U.S.' domestic capability for the manufacture of HALEU and its processing. Currently we are still in the process of developing such facility and target to have such facility in operation early next decade.

In March 2023, we entered into a memorandum of understanding with Centrus Energy Corp. (or Centrus), an energy fuel company who will provide HALEU to support HALEU Energy's research and development and commercialization on initial test reactor cores and its commercial variant reactors. However, such a memorandum is not binding on both parties with certain exceptions, such as confidentiality. There is no assurance that we will enter into any purchase agreement with Centrus in the future.

In November 2024, we announced a \$2 million strategic investment in and entry into a collaboration with a laser-based uranium enrichment technology company, LIST, which is a related party. Through this investment and related collaboration, we aim to assist in advancing LIST's technologies to secure a reliable low enriched uranium fuel supply for our future operations and the broader nuclear energy industry. The parties intend that LIST will provide us with enriched UF<sub>6</sub> at no cost to be fabricated and sold to customers, with LIST to receive compensation as part of a profit-sharing arrangement to be agreed to between the companies in the future. Through collaboration with LIST, we intend to construct the supporting facilities alongside LIST's enrichment facility, including the deconversion and fuel fabrication facilities. The construction of these facilities and related activities are subject to similar risks to those outlined above with respect to our own HALEU fuel processing facility. Further, there is a risk that LIST's technology will itself not advance to commercial viability or secure applicable regulatory approvals. All of the foregoing creates the risk of loss with respect to our investment in and collaboration with LIST.

If our plan to complete and operate any fuel processing facilities is delayed, suspended, interrupted, or cancelled for whatever reason, our business, financial condition and results of operations will be adversely and materially disrupted, and the value of our securities may significantly decline or become worthless.

***We plan to produce a regulatorily licensed, high-capacity HALEU transportation system, capable of moving commercial quantities of HALEU fuel around North America and worldwide. The failure of production and commercialization of such products as planned will adversely and materially affect our business, financial condition, and result of operations.***

We intend to produce a regulatorily licensed, high-capacity HALEU transportation system, capable of moving commercial quantities of HALEU fuel around North America and beyond. We received an exclusive license for a high capacity HALEU fuel transportation basket design in April 2024, which will form the basis of a complete transportation package able to move the most commonly utilized fuel. The license grants us, as the licensee, exclusive rights for the use and development of certain transportation technology. If developed and commercialized, we believe this product would be the only one of its kind in North America and would serve as the basis for a domestic HALEU transportation company capable of providing commercial quantities of HALEU fuel.

In September 2024, we signed an agreement with GNS to undertake a wide-ranging project to produce an optimized HALEU transportation system solution based on our exclusively licensed fuel transportation basket design. The GNS agreement encompasses a study for the transport of multiple HALEU nuclear fuel types, including uranium oxide, TRISO particles, uranium-zirconium hydride, uranium mononitride, and salt fuel for molten salt reactors, thus optimizing the quantity of material that can be transported and developing a conceptual package design that will accommodate the new basket design. We are targeting to have our fuel transportation business in operation by 2028. However, there is no assurance that we can successfully produce such a product and operate such a business as planned. If our plan to produce and commercialize such product is delayed, suspended, interrupted or cancelled for whatever reason, our business, financial condition and results of operations will be adversely and materially disrupted, and the value of our securities may significantly decline or become worthless.

***We plan to provide nuclear service support and consultation services for the expanding and resurgent nuclear energy industry, both domestically and internationally. Failure to do so as planned will adversely and materially affect our business, financial condition, and result of operations.***

We plan to provide nuclear service support and consultation services for the expanding and resurgent nuclear energy industry, both domestically and internationally. This business opportunity represents our most near-term revenue generating opportunity and our goal is to begin providing these services in 2025, both domestically and internationally. As part of our efforts domestically, following our collaboration with Digihost in December 2024, we expect to provide consulting services to Digihost beginning in the first quarter of 2025. These services will support the planning and execution of the Digihost project and will encompass regulatory advice, site assessment, roadmap development, and stakeholder engagement. In addition to these rendered services, we are examining strategic acquisitions to expand our business and consultancy services. We have commenced several material discussions with potential targets for such acquisitions, but as of the date of this Report, we have not entered into any definitive agreements for such acquisitions. In combination with our intention to acquire existing revenue generating consultancy businesses, we are focusing on building our own internal nuclear consultation business in coordination with certain outside academic institutions, which we anticipate would require approximately \$2 million over the next twelve months to recruit additional staff and build corresponding infrastructure to be capable of providing these services. No assurances can be given that we will be able to successfully acquire or establish and thereafter grow our own consultation business, and our failure to do so would adversely affect our near-term revenue prospects. Moreover, the outlined expenditures and the timelines are estimations only. These estimates are inherently subject to significant risks and change due to unforeseen circumstances, operational challenges, adjustments in the microreactor development plan and uncertainties associated with the licensing approval process, and other factors beyond our control. 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.

The current upsurge in interest in nuclear energy, combined with the increased investment from both private and governmental sources within the nuclear space, as well as the global push for zero carbon technologies, has created a demand for nuclear energy expertise which exceeds supply. The increased demand in personnel and nuclear related business activity will create increased demand for personnel involved in the licensing and regulatory aspects of the industry, which provide us with potential to root in this area. We have already identified several nuclear services and consultancy providers, which have been assessed as potentially suitable for acquisition by our company. However, there is no assurance that we can acquire them successfully or as planned. If our plan to start the consulting services is delayed, suspended, interrupted or cancelled for whatever reason, our business, financial condition and results of operations will be adversely and materially disrupted, and the value of our securities may significantly decline or become worthless.

Providing a nuclear consulting service as a business comes with a unique set of difficulties and challenges due to the complexity and sensitivity of the nuclear industry. These challenges and difficulties include, but are not limited to:

- Providing valuable nuclear consulting services requires a deep understanding of nuclear science, engineering, and technology. Maintaining a team with the necessary expertise can be difficult.
- Consulting on nuclear projects involves addressing safety and security issues. Ensuring that clients are compliant with safety protocols and security measures is a critical responsibility.
- Handling sensitive nuclear information and data requires strict security measures and confidentiality protocols to protect classified or proprietary information.
- As a consultant, we may face liability issues if our advice leads to undesirable outcomes or non-compliance with regulations. Managing and mitigating these risks is essential.
- The nuclear consulting market can be competitive, with established consulting firms and experts in the field. Standing out and securing clients can be challenging, especially for newcomers.
- The nuclear industry is evolving with new technologies, safety standards, and market dynamics. Staying updated and adapting to these changes is vital to remain relevant and competitive.
- Managing multiple projects for different clients with varying timelines and needs can be challenging. Effective project management is essential to meet deadlines and deliver quality results.
- Meeting and managing client expectations can be demanding. Clients may have high expectations for the outcomes of their nuclear projects, and effective communication is essential to align expectations with reality.
- Leveraging data analytics and technological advancements can be challenging, especially when dealing with legacy system in the nuclear industry.

For our nuclear consulting business to be viable and grow, it will be crucial for us to build a strong team with diverse expertise, stay current with industry trends and regulations, prioritize security and confidentiality, and maintain high ethical standards. Effective communication, networking, and relationship-building with our clients and the regulatory authorities are also essential for establishing our credibility and trust in the industry. Notwithstanding the foregoing, there is no assurance we can address these or similar challenges and difficulties, the failure of which may adversely and materially affect our business, financial condition and results of operation.

***We have undertaken and will continue to pursue strategic acquisitions. These acquisitions may be difficult to consummate and integrate and may create losses for us or not provide us with the anticipated benefits. We may not be able to successfully integrate our previous and future acquisitions or generate sufficient revenues or earnings from future acquisitions, which could cause our business to suffer.***

We have undertaken (as in the case of the ALIP technology and our acquisition of the USNC Assets) and will continue to pursue strategic acquisitions of complimentary or additive businesses or assets to both diversify and further vertically integrate our business lines and accelerate our growth. If we buy a company, a division of a company or assets that we feel are complementary to our business, there can be no assurance that we will be able to profitably manage such business or successfully integrate such business or assets without substantial costs, delays or other operational or financial problems. We are also faced with the risk that the businesses or assets we acquire will not achieve anticipated benefits, revenues and earnings. Additionally:

- the key personnel of the acquired business may decide not to work for us;
- changes in management at an acquired business may impair its relationships with employees and customers;

- we may be unable to maintain uniform standards, controls, procedures and policies among acquired businesses;
- we may be unable to successfully implement infrastructure, logistics and system integration;
- we may be held liable for legal claims (including environmental claims) arising out of activities of the acquired businesses prior to our acquisitions, some of which we may not have discovered during our due diligence, and we may not have indemnification claims available to us or we may not be able to realize on any indemnification claims with respect to those legal claims;
- we will assume risks associated with deficiencies in the internal control of acquired businesses;
- we may not be able to realize the cost savings or other financial benefits we anticipated; and
- our ongoing business may be disrupted or receive insufficient management attention.

We face these and similar risks in connection with our June 2024 acquisition of the ALIP technology. We may not be able to successfully integrate the ALIP technology into our microreactor designs, which could lead to a loss of our investment in this technology. Moreover, we anticipate, pending the successful completion of the SBIR III program for the ALIP technology (which we are funding), that we will seek to separately commercialize the ALIP technology as a means of generating revenues. We are thus faced with the risks that the SBIR Phase III may not be completed on a timely basis or at all, and further that we may be unable to commercially sell or license the technology (or products derived from the technology) to third parties.

Similarly, we may face significant risks related to our acquisition of the USNC Assets. Even if the acquisition is consummated, we may encounter significant challenges in integrating the USNC Assets into our corporate structure or our intended regulatory strategies for our **ZEUS** and **ODIN** reactors, which could result in delays, increased costs or the inability to utilize the USNC Assets, thus leading to a loss of our investment in the USNC Assets and adversely affecting our business operations and financial condition.

Also, future acquisitions may require us to obtain additional, perhaps substantial, equity or debt financing, which may not be available on attractive terms. Moreover, to the extent an acquisition transaction financed by non-equity consideration results in additional goodwill, it will reduce our tangible net worth, which might have an adverse effect on our credit and bonding capacity.

***If we experience significant fluctuations in our operating results and rate of growth and fail to meet revenue and earnings expectations, our stock price may fall rapidly and without advance notice.***

Due to our limited operating history, our unproven and evolving business model and the unpredictability of our emerging industry, we may not be able to accurately forecast our rate of growth. We base our current and future expense levels and our investment plans on estimates of future revenue and future rate of growth. Our expenses and investments are, to a large extent, not fixed and we expect that these expenses will increase in the future. We may not be able to adjust our spending quickly enough if our revenue falls short of our expectations.

Our results of operations depend on both the growth of demand for the products and services we are going to offer in the future and the general economic and business conditions throughout the world. A softening of demand for our products and services for any reason will harm our operating results. Terrorist attacks, armed hostilities and wars in the past created, and may in the future create economic and business uncertainty that may also adversely affect our results of operations.



Our revenue and operating results may also fluctuate due to other factors, including:

- our ability of the design, developing, manufacturing and sales of smaller, cheaper, and safer advanced portable clean energy solutions, including nuclear reactors.
- our ability to develop a domestic HALEU fuel processing facility to supply the next generation of advanced nuclear reactors with fuel.
- our ability to produce a regulatorily licensed, high-capacity HALEU transportation system, capable of moving commercial quantities of a variety of HALEU fuels.
- our ability to provide nuclear service support and consultation services for the expanding and resurgent nuclear energy industry, both domestically and internationally.
- assumptions relating to the size of the market for our nuclear reactors.
- unanticipated regulations of nuclear energy that add barriers to our business and have a negative effect on our operations.
- our estimates of expenses, future revenue, capital requirements and our needs for, or ability to obtain, additional financing.
- new product and service introductions by our competitors.
- technical difficulties or interruptions in our service.
- general economic conditions in our geographic markets.
- additional investment in our service or operations.
- regulatory compliance costs.

As a result of these and other factors, we expect that our operating results may fluctuate significantly on a quarterly basis. We believe that period-to-period comparisons of our operating results may not be meaningful, and you should not rely upon them as an indication of future performance.

***Federal budget delays, federal debt ceiling limitations, or reductions in government spending could adversely impact government spending for the products and services we provide.***

Federal government spending reductions could adversely impact U.S. government programs related to our products or services. While we believe many of our programs do not conflict with the U.S. government's strategic priorities, government spending on these programs can be subject to negative publicity, political factors and public scrutiny. The risk of future budget delays or reductions is uncertain, and it is possible that spending cuts may be applied to U.S. government programs across the board, regardless of how programs align with those priorities. There are many variables in how budget reductions could be implemented that will determine its specific impact; however, reductions in federal government spending could adversely impact programs in which we provide products or services. In addition, these cuts could adversely affect the viability of the suppliers and subcontractors under our programs. These and similar risks are associated with our participation with LIST in the DOE's LEU Acquisition Program. Such program could be eliminated or subject to reduction, and no assurances can be given that we will be allocated any material funding from the LEU Acquisition Program.

***The cost of electricity generated from nuclear sources may not be cost competitive with other electricity generation sources in some markets, which could materially and adversely affect our business.***

Some electricity markets experience very low power prices due to a combination of subsidized renewables and low-cost fuel sources, and we may not be able to compete in these markets unless the benefits of the carbon-free, reliable and/or resilient energy generation are sufficiently valued in the market. Given the relatively lower electricity prices in the United States when compared to many international markets, the risk may be greater with respect to business in the United States.

***The market for SMRs generating nuclear power is not yet established and may not achieve the growth potential we expect or may grow more slowly than expected.***

The market for SMRs has not yet been established. Our estimates for the total addressable market are based on a number of internal and third-party estimates, including our potential contracted revenue, the number of potential customers, assumed prices and production costs, our ability to leverage our current logistical and operational processes, and general market conditions. However, our assumptions and the data underlying our estimates may not be correct and the conditions supporting our assumptions or estimates may change at any time, thereby reducing the predictive accuracy of these underlying factors. As a result, our estimates of the annual total addressable market for our services, as well as the expected growth rate for the total addressable market for our services, may prove to be incorrect.

***All of our executive officers are presently engaged by us on an independent contractor basis, except for Jay Jiang Yu, our founder, President, Secretary and Treasurer, and Chairman of the Board, with whom we have an employment agreement, and they each have management, advisory or directorship positions with other companies and may allocate their time to other businesses, which may pose certain risks in fulfilling their obligations with us.***

Except for Jay Jiang Yu, our founder, President, Secretary and Treasurer, and Chairman of the Board, with whom we have an employment agreement, all of our other executive officers are presently engaged by us as independent contractors due to the fact that they each have management, advisory or directorship positions with other companies and may allocate their time to other businesses. Notwithstanding the foregoing, Mr. Yu has concurrently served on the board and management team of several companies and currently allocates at least 15 hours per week to his roles at other companies. Mr. Yu also concurrently serves as president and chairman of the board of LIST.

Mr. James Walker, our Chief Executive Officer, currently allocates at least ten hours per week to support Ares Strategic Mining Inc. (or Ares), a Canadian-based company listed on the Canadian Stock Exchange under (Ticker: ARS) engaged in junior natural resource mining, where he is responsible for the construction of plants, purchases of land, operations, marketing, financing, safety regulation compliance, and shareholder relations. He is also concurrently serving on the board of directors of several small-cap publicly traded companies and a consultant to LIST. Jaisun Garcha, our Chief Financial Officer, is currently, and will continue to, work full time with us, and is currently also working as the part time chief financial officer and a director of LIST.

Our executive officers are not employees of our company (Mr. Yu excepted), instead, they serve as independent contractors and can be terminated by either party at any time. They may pursue any other activities and engagements during their terms of agreements with us. The existing external commitments and any future commitments of our officers to other companies may potentially divert their significant time and attention away from the strategic and operational needs of our company. Their divided focus could lead to delays in decision-making, hinder effective communication within our organization, give rise to potential conflicts of interest, and introduce a divergence in priorities, consequently impacting the overall efficacy of leadership. Additionally, the potential for conflicting interests arising from commitments to multiple entities may pose challenges in aligning those officers' priorities with the long-term goals and interests of our company, thereby introducing an element of uncertainty and potential disruption to our operations. It is essential to acknowledge and address these complexities to ensure that our officers can effectively balance their responsibilities and fulfill their commitments to our company while maintaining transparency and integrity in their various roles. Failure to do so may adversely affect our business, financial conditions, and results of operations.

***We may be unable to manage our future growth effectively, which could make it difficult to execute our business strategy.***

If our operations grow as planned, we may need to expand our sales and marketing, research and development, supply and manufacturing functions, and there is no guarantee that we will be able to scale our business as planned. If we are not able to achieve and maintain cost-competitiveness in the United States or elsewhere, our business could be materially and adversely affected.

***We and our target customers operate in a politically sensitive environment, and the public perception of nuclear energy can affect our target customers and us.***

Nuclear energy is closely tied to government policies and regulations due to its potential risks and benefits. Governments often play a central role in the approval, regulation, and funding of nuclear projects. Changes in political leadership or shifts in public sentiment can lead to shifts in nuclear energy policies, which can affect the viability and profitability of nuclear businesses. The regulatory framework for nuclear energy is stringent and subject to public scrutiny. Regulatory decisions can influence the cost, timeline, and feasibility of nuclear projects. Public concerns and political pressure can lead to tighter regulations or stricter enforcement of existing ones. Government policies and incentives, often influenced by public opinion and political considerations, can directly impact the growth and competitiveness of nuclear energy. Favorable policies such as subsidies, tax credits, or incentives for clean energy can attract more customers to the nuclear energy sector.

In addition, public perception of nuclear energy can range from positive to highly skeptical or negative, often influenced by historical events, accidents, and media coverage. Negative public sentiment can lead to protests, legal challenges, and public resistance to new nuclear projects, potentially delaying or preventing their development. Nuclear facilities often need to engage with local communities where they operate. Building and maintaining trust with these communities is crucial for obtaining social acceptance. Public opposition, fueled by concerns about safety or environmental impact, can hinder a company's ability to establish a presence in a particular location. Public perception of nuclear safety and viability can also influence the willingness of investors and financial institutions to fund nuclear projects. Negative public sentiment can increase financing costs and make it more difficult to secure the necessary capital. However, public preferences for energy sources can influence the demand for nuclear energy. A positive perception of nuclear power as a clean and reliable energy source can boost its market appeal. Conversely, public concerns about nuclear safety and waste disposal can lead to decreased demand, impacting a nuclear company's customer base. Additionally, public perception of a country's nuclear industry can affect its ability to export nuclear technology, reactors, and fuel assemblies to international customers. International perceptions of safety and reliability play a role in export decisions.

As a result, the risks associated with nuclear energy materials and the public perception of those risks can affect our business. Opposition by third parties can delay or prevent the construction of new nuclear power plants and can limit the operation of nuclear reactors. Adverse public reaction to developments in the use of nuclear power could directly affect our customers and indirectly affect our business. In the past, adverse public reaction, increased regulatory scrutiny and litigation have contributed to extended construction periods for new nuclear reactors, sometimes delaying construction schedules by decades or more or even shutting down operations. In addition, anti-nuclear groups in Germany successfully lobbied for the adoption of the Nuclear Exit Law in 2002, which led to the shutdown of all German nuclear power plants as of April 15, 2023. Adverse public reaction could also lead to increased regulation or limitations on the activities of our customers, more onerous operating requirements or other conditions that could have a material adverse impact on our target customers and our business.

Accidents involving nuclear power facilities, including but not limited to events like the Three Mile Island, Chernobyl and Fukushima Daiichi nuclear accidents, or terrorist acts or other high-profile events involving radioactive materials could materially and adversely affect our target customers and the markets in which we operate and increase regulatory requirements and costs that could materially and adversely affect our business.

Our future prospects are dependent upon a certain level of public support for nuclear power. Nuclear power faces strong opposition from certain competitive energy sources, individuals and organizations. The accident that occurred at the Fukushima nuclear power plant in Japan in 2011 increased public opposition to nuclear power in some countries, resulting in a slowdown in, or, in some cases, a complete halt to new construction of nuclear power plants, an early shut down of existing power plants or a dampening of the favorable regulatory climate needed to introduce new nuclear technologies, all of which could negatively impact our business and prospects. As a result of the Fukushima accident, some countries that were considering launching new domestic nuclear power programs delayed or cancelled the preparatory activities they were planning to undertake as part of such programs. If accidents similar to the Fukushima disaster or other events, such as terrorist attacks involving nuclear facilities, occur, public opposition to nuclear power may increase, regulatory requirements and costs could become more onerous, which could materially and adversely affect our business and operations.

## Risks Related to Our Intellectual Property

*If we fail to develop, gain approval for, protect or enforce our intellectual property or proprietary rights, our business and operating results could be harmed.*

We currently own the rights to the significant majority of our intellectual property, including one trademark pending registration. We received an exclusive license for a high capacity HALEU fuel transportation basket design in April 2024, which will form the basis of a complete transportation system to move a range of fuel types. The 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. We may enter into other license agreements in the future for our business development. There is no assurance that we, as the licensee, will be able to obtain or renew, if at all or in a timely manner, any of the license agreements upon its expiration. Failure to obtain or renew, or early termination of, any such agreement may materially and adversely affect our business, financial conditions and results of operations.

We regard the protection of our trade secrets, trademarks, licenses, trade dress, patents and copyrights (if any, in future), domain names and other intellectual property or proprietary rights as critical to our success. We strive to protect our intellectual property rights by relying on federal, state and common law rights, as well as contractual restrictions. We seek to protect our confidential proprietary information, in part, by entering into consulting agreements, and/or services or employment agreements that contain non-disclosure and non-use provisions with our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information or technology. However, we cannot be certain that we have executed such agreements with all parties who may have helped to develop our intellectual property or who had access to our proprietary information, nor can we be certain that our agreements will not be breached. Any party with whom we have executed such an agreement could potentially breach that agreement and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. We cannot guarantee that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Detecting the disclosure or misappropriation of a trade secret and enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, time-consuming and could result in substantial costs and the outcome of such a claim is unpredictable. Further, the laws of certain foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property or proprietary rights both in the United States and abroad. If we are unable to prevent the disclosure of our trade secrets to third parties, or if our competitors independently develop any of our trade secrets, we may not be able to establish or maintain a competitive advantage in our market, which could harm our business.

We currently have no registered patents related to our technology, but we have two patent applications with The United States Patent and Trademark Office (USPTO) which are under review. We are currently in the process of acquiring USNC's patented MMR® Energy System, along with all associated patents and other intellectual property rights, as well as its Pylon reactor technology and related intellectual property, and certain demonstration project partnerships related to the MMR system, pending closing. We also believe developing technology more comprehensively before patenting it provides our company with certain potential strategic advantages. We are balancing the advantages of comprehensive development with the risk of potential delays in securing patent protection and continue to consult qualified intellectual property counsel so we can make informed decisions regarding the timing of other patent filings and the overall protection strategy. Patent laws, and scope of coverage afforded by them, have recently been subject to significant changes, such as the change to "first-to-file" from "first-to-invent" resulting from the Leahy-Smith America Invents Act. This change in the determination of inventorship may result in inventors and companies having to file patent applications more frequently to preserve rights in their inventions, which may favor larger competitors that have the resources to file more patent applications. Another change to the patent laws may incentivize third parties to challenge any issued patent in the USPTO, as opposed to having to bring such an action in U.S. federal court. Any invalidation of a patent claim could have a significant impact on our ability to protect the innovations contained within our products and could harm our business.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions to maintain patent applications and issued patents. We may fail to take the necessary actions and to pay the applicable fees to obtain or maintain our patents in the future. Non-compliance with these requirements can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to use our technologies and enter the market earlier than would otherwise have been the case.

We pursue the registration of our domain names, trademarks and service marks in the United States. We may seek to protect our trademarks, patents and domain names in an increasing number of jurisdictions in future, a process that is expensive and time-consuming and may not be successful or which we may not pursue in every location.

Litigation may be necessary to enforce our intellectual property or proprietary rights, protect our trade secrets or determine the validity and scope of proprietary rights claimed by others. Any litigation of this nature, regardless of outcome or merit, could result in substantial costs, adverse publicity or diversion of management and technical resources, any of which could adversely affect our business and operating results. If we fail to maintain, protect and enhance our intellectual property or proprietary rights, our business may be harmed.

***We rely on our unpatented proprietary technology, trade secrets, designs, experiences, workflows, data, processes, software and know-how.***

We rely on proprietary information (such as trade secrets, know-how and confidential information) to protect intellectual property that may not be patentable or subject to copyright, trademark, trade dress or service mark protection, or that we believe is best protected by means that do not require public disclosure. We generally seek to protect this proprietary information by entering into consulting agreements, and/or services or employment agreements that contain non-disclosure and non-use provisions with our employees, consultants, contractors and third parties. However, we may fail to enter into the necessary agreements, and even if entered into, these agreements may be breached or may otherwise fail to prevent disclosure, third-party infringement or misappropriation of our proprietary information, may be limited as to their term and may not provide an adequate remedy in the event of unauthorized disclosure or use of proprietary information. We have limited control over the protection of trade secrets used by our current or future partners and suppliers and could lose future trade secret protection if any unauthorized disclosure of such information occurs. In addition, our proprietary information may otherwise become known or be independently developed by our competitors or other third parties. To the extent that our employees, consultants, contractors, advisors and other third parties use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain protection for our proprietary information could adversely affect our competitive business position. Furthermore, laws regarding trade secret rights in certain markets where we operate may afford little or no protection to its trade secrets.

We also rely on physical and electronic security measures to protect our proprietary information, but we cannot provide assurance that these security measures will not be breached or provide adequate protection for our property. There is a risk that third parties may obtain and improperly utilize our proprietary information to our competitive disadvantage. We may not be able to detect or prevent the unauthorized use of such information or take appropriate and timely steps to enforce our intellectual property rights.

***We may be accused of infringing intellectual property rights of third parties and content restrictions of relevant laws, which may materially and adversely affect our business, financial condition, and results of operations.***

Third parties may claim that the technology used in the operation of our business infringes upon their intellectual property rights. Although we have not in the past faced any litigation involving direct claims of infringement by us, the possibility of intellectual property claims against us increases as we continue to grow. Such claims, whether having merit, may result in our expenditure of significant financial and management resources, injunctions against us or payment of damages. We may need to obtain licenses from third parties who allege that we have infringed their rights, but such licenses may not be available on terms acceptable to us or at all. These risks have been amplified by the increase in third parties whose sole or primary business is to assert such claims.

The outcome of any claims, investigations and proceedings is inherently uncertain, and in any event defending against these claims could be both costly and time-consuming and could significantly divert the efforts and resources of our management and other personnel. An adverse determination in any such litigation or proceedings could cause us to pay damages, as well as legal and other costs, limit our ability to conduct business or require us to change the manner in which we operate.

## Risks Related to Regulation and Compliance

***Our business is subject to a wide variety of extensive and evolving government laws and regulations. Changes in and/or failure to comply with such laws and regulations could have a material adverse effect on our business.***

We are subject to new or changing international, federal, state, and local regulations, including laws relating to the design, development, manufacturing, marketing, servicing, or sales of our nuclear-fuel related products. Such laws and regulations may require us to pause sales and modify our products, which could result in a material adverse effect on our ability to generate revenues (or any future revenues) and our financial condition generally. Such laws and regulations can also give rise to liability such as fines and penalties, property damage, bodily injury, and cleanup costs. Failure to comply with such regulations could lead to the withdrawal or recall of our products from the market, delay our projected revenues, increase cost, or make our business unviable if we are unable to modify our products to comply. Capital and operating expenses needed to comply with laws and regulations can be significant, and violations may result in substantial fines and penalties, third-party damages, suspension of production or a cessation of our operations. Any failure to comply with such laws or regulations could lead to withdrawal or recall of our products from the market.

Regulatory risk factors associated with our business also include our ability to obtain additional applicable approvals, licenses or certifications from regulatory agencies, if required, and to maintain current approvals, licenses or certifications. Any regulatory delays, delays imposed as a result of regulatory inspections and changing regulatory requirements, may impede our planned actions from being implemented or completed, many of which may be out of our control. Any natural disasters, changes in governmental regulations or in the status of our regulatory approvals or applications or other events that force us to cancel or reschedule our product development and production, could have an adverse impact on our business and financial condition.

***We are subject to U.S. and foreign anti-corruption and anti-money laundering laws and regulations. We can face criminal liability and other serious consequences for violations, which can harm our business.***

We are subject to the U.S. Foreign Corrupt Practices Act, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the Money Laundering Control Act 18 U.S.C. §§ 1956 and 1957, and other anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors and other collaborators from authorizing, promising, offering or providing, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector, and require that we keep accurate books and records and maintain internal accounting controls designed to prevent any such actions. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors and other collaborators, even if we do not explicitly authorize or have actual knowledge of such activities.

As we intend to conduct international cross-border business and expand our operations abroad, we may engage business partners and third-party intermediaries to market our products and to obtain necessary permits, licenses and other regulatory approvals overseas. In addition, we or our third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities. We can be held liable for the corrupt or other illegal activities of these third-party intermediaries, our employees, representatives, contractors, partners and agents, even if we do not explicitly authorize such activities. We cannot assure you that all of our employees and agents will not take actions in violation of our policies and applicable law, for which we may be ultimately held responsible. As we intend to expand our international business, our risks under these laws may increase.

Detecting, investigating and resolving actual or alleged violations of anti-corruption laws can require a significant diversion of time, resources and attention from our management. In addition, non-compliance with anti-corruption or anti-bribery laws could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution, enforcement actions, fines, damages, other civil or criminal penalties, injunctions, suspension or debarment from contracting with certain persons, reputational harm, adverse media coverage and other collateral consequences. If any subpoenas are received or investigations are launched, or governmental or other sanctions are imposed, or if we do not prevail in any possible civil or criminal proceeding, our business, operating results and financial condition could be materially harmed.

***If we fail to comply with the laws and regulations relating to the collection of sales tax and payment of income taxes in the various states in which we do business, we could be exposed to unexpected costs, expenses, penalties and fees as a result of our non-compliance, which could harm our business.***

By engaging in business activities in the United States, we become subject to various state laws and regulations, including requirements to collect sales tax from our sales within those states, and the payment of income taxes on revenue generated from activities in those states. A successful assertion by one or more states that we were required to collect sales or other taxes or to pay income taxes where we did not could result in substantial tax liabilities, fees and expenses, including substantial interest and penalty charges, which could harm our business.

#### **General Risks Associated with Our Company**

***We are highly dependent on our senior management team and other highly skilled personnel. If we are unable to attract, retain and maintain highly qualified personnel, including our senior management team, we may not be able to implement our business strategy and our business and results of operations would be harmed.***

Our business and prospect are highly dependent on the continued services of our senior management team, particularly our Chief Executive Officer James Walker, our President, Secretary, Treasurer, our Chairman of the Board Jay Jiang Yu, and our Chief Financial Officer Jaisun Garcha. Our senior management team has extensive experience in the energy and finance industries, and we believe that their depth of experience is instrumental to our continued success. See “*Directors, Executive Officers and Corporate Governance*” for further details. The loss of any one or more members of our senior management team, for any reason, including resignation or retirement, could impair our ability to execute our business strategy and have a material adverse effect on our business and financial condition if we are unable to successfully attract and retain qualified and highly skilled replacement personnel.

In addition, our ability to execute our plans and grow our company will depend in large part on our ability to attract, motivate, develop, retain and maintain a sufficient number of other highly skilled personnel, including engineers, nuclear energy professionals, finance, marketing and sales personnel. Maintaining a diverse team of skilled personnel who can collectively address the technical, regulatory, financial, and operational aspects of our business, including but not limited to, nuclear engineers and scientists, regulatory and licensing experts, safety and security experts, quality control and assurance managers, environmental and waste management experts, and financial and legal professionals, is also essential to our business. Our goal is to build a well-rounded and experienced team with expertise in these areas to ensure the development, operation, and commercialization of our business, while ensuring safety, regulatory compliance, and long-term viability.

However, if we are unable to attract, retain, and maintain our senior management team and other highly skilled personnel, we may not be able to implement our business strategy, and our business, financial condition and results of operations may be adversely and materially affected. If any of our senior management team members were to terminate his or her employment with us, there can be no assurance that we would be able to find suitable replacements in a timely manner, at acceptable cost or at all. The loss of services of senior management team members or the inability to identify, hire, train and retain other qualified and managerial personnel in the future may materially and adversely affect our business, financial condition, results of operations and prospects.

***Mr. Jay Jiang Yu, our President, Secretary, Treasurer, and Chairman of the Board, has a significant influence over our company due to his ownership of a material percentage of our outstanding common stock. Also, his interests may not always be aligned with the interests of our other stockholders, which may lead to conflicts of interest that harm our company.***

As of December 27, 2024, Mr. Jay Jiang Yu, our President and Chairman, beneficially owns an aggregate of approximately 28.70% shares of our common stock. Due to his ownership of a material percentage of our outstanding common stock, Mr. Yu could have significant influence in determining the outcome of any corporate transaction or other matter submitted to the stockholders for approval, including mergers, consolidations, the appointment of directors and other significant corporate actions. Without the consent of Mr. Yu, we may be prevented from entering into transactions that could be beneficial to us or our other stockholders. Moreover, our interests and the interests of Mr. Yu may not always be aligned, which could create conflicts of interest of Mr. Yu and may not be resolved in favor of all of our stockholders or may otherwise harm our company. For more information regarding Mr. Yu’s ownership of our company, see “*Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.*”

***Failure to establish and maintain effective internal control in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on our business and stock price.***

Prior to the completion of our initial public offering in May 2024, we were a private company with limited accounting personnel to adequately execute our accounting processes and limited supervisory resources with which to address our internal control over financial reporting. As a private company, we did not design or maintain an effective control environment as required of public companies under the rules of the SEC implementing Section 404 of the Sarbanes-Oxley Act and therefore are not required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose. Specifically, we lack a sufficient number of professionals with an appropriate level of accounting knowledge, training and experience to appropriately analyze, record and disclose accounting matters timely and accurately while maintaining appropriate segregation of duties.

Upon becoming a publicly traded company, we became required to comply with the SEC's rules implementing Sections 302 and 404 of the Sarbanes-Oxley Act, which require management to certify financial and other information in our quarterly and annual reports and provide an annual management report on the effectiveness of controls over financial reporting. Though we are required to disclose changes made in our internal controls and procedures on a quarterly basis, we are not required to make our first annual assessment of our internal control over financial reporting pursuant to Section 404 until the year following our first annual report required to be filed with the SEC.

Proper system of internal control over financial accounting and disclosure controls and procedures are critical to the operation of a public company. We may be unable to effectively establish such system, especially in light of the fact that we expect to operate as a publicly reporting company. This would leave us without the ability to reliably assimilate and compile financial information about our company and significantly impair our ability to prevent error and detect fraud, all of which would have a negative impact on our company from many perspectives.

Moreover, we do not expect that disclosure control or internal control over financial reporting, even if established, will prevent all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in the control system, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Failure of our control system to prevent error or fraud could materially adversely impact us.

***Our ability to effectively manage our anticipated growth and expansion of our operations will also require us to enhance our operational, financial and management controls and infrastructure, human resources policies and reporting system. These enhancements and improvements will require significant capital expenditures and allocation of valuable management and employee resources.***

We expect to experience significant growth in the scope and nature of our operations. Our ability to manage our operations and future growth will require us to continue to improve our operational, financial and management controls, compliance programs and reporting system. We may not be able to implement improvements in an efficient or timely manner and may discover deficiencies in existing controls, programs, systems and procedures, which could have an adverse effect on our business, reputation and financial results. Additionally, rapid growth in our business may place a strain on our human and capital resources. Furthermore, we expect to continue to conduct our business internationally and anticipate increased business operations in the United States, Asia, and Europe. Asia and Europe are obvious destinations to launch manufacturing operations given the high demand for clean technologies, developed technical workforce, and strong manufacturing bases with nuclear experience. We will also be targeting developing countries that could benefit from the introduction of mobile, remote, power sources able to unlock a lot of economic resources. These diversified, global operations place increased demands on our limited resources and require us to substantially expand the capabilities of our administrative and operational resources and to attract, train, manage and retain qualified management, technical, experts, engineering, sales and other personnel, the failure of which may adversely affect our business, financial condition and results of operations.



***We are subject to cybersecurity risks.***

Like other businesses, we face cybersecurity risks. Threat sources continue to seek to exploit potential vulnerabilities. These cyberattacks are becoming increasingly sophisticated and dynamic. We expect these cyberattacks to continue to occur in the future and we are constantly managing efforts to infiltrate and compromise our information technology systems and data. Given the highly regulated and sensitive industry in which we operate, cybersecurity threats pose a particular risk for our company. While we develop and maintain systems seeking to prevent security breaches from occurring, the development and maintenance of these systems is costly and requires ongoing monitoring and updating as techniques used in such attacks become more sophisticated and change frequently. We, and the third parties on which we rely, may be unable to anticipate these techniques or implement adequate preventive measures.

A cybersecurity breach, including physical or electronic break-ins, computer viruses, malware, attacks by hackers, ransomware attacks, phishing attacks, supply chain attacks, breaches due to employee error or misconduct and other similar breaches, of our physical assets or information systems, or those of our vendors, business partners and interconnected entities or regulators could impact our operations or result in the theft or inappropriate release of certain types of information, including critical infrastructure information, sensitive customer, vendor and employee data, trading or other confidential data. The risk of these system-related events and cybersecurity breaches occurring continues to intensify, and while we have not directly experienced a material breach or disruption to our network or information systems or our operations to-date, such cyberattacks continue to increase in sophistication and frequency, and we may be unable to prevent all such cyberattacks in the future.

If a significant breach were to occur, our reputation could be negatively affected, customer confidence in us or others in the industry could be diminished, or we could be subject to legal claims, loss of revenues, increased costs or operations shutdown. In addition, our network and information systems are vulnerable to damage or interruption from power outages, telecommunications failures, accidents, natural disasters (including extreme weather arising from short-term or any long-term changes in weather patterns), terrorist attacks and similar events. Our system redundancy may be ineffective or inadequate, and our disaster recovery planning may not be sufficient for all eventualities. Moreover, the amount and scope of insurance maintained against losses resulting from any such events or security breaches may not be sufficient to cover losses or otherwise adequately compensate for any disruptions to business that could result. Furthermore, in the future, such insurance may not be available on commercially reasonable terms, or at all.

In addition, new or updated security regulations or unforeseen threat sources could require changes in current measures taken by us or our business operations and could adversely affect our consolidated financial statements.

***We will incur significantly increased costs as a result of, and devote substantial management time to operating as, a public company.***

We only became a public company in May 2024. As such, we have incurred and will continue to incur significant legal, accounting, and other expenses that we did not incur as a private company. For example, we are subject to the reporting requirements of the Exchange Act and will be required to comply with the applicable requirements of the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the SEC, including the establishment and maintenance of effective disclosure and financial controls, changes in corporate governance practices and required filing of annual, quarterly and current reports with respect to our business and operating results. These requirements have and will continue to increase our legal and financial compliance costs and will make some activities more time-consuming and costly. In addition, our management and other personnel need to divert attention from operational and other business matters to devote substantial time to these public company requirements. We will also need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and will need to establish an internal audit function. Operating as a public company makes it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. This could also make it more difficult for us to attract and retain qualified people to serve on our board of directors, our board committees or as executive officers. In addition, after we no longer qualify as an “emerging growth company,” as defined under the JOBS Act we expect to incur additional management time and cost to comply with the more stringent reporting requirements applicable to companies that are deemed accelerated filers or large accelerated filers, including complying with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act. We are just beginning the process of compiling the system and processing documentation needed to comply with such requirements. We may not be able to complete our evaluation, testing and any required remediation in a timely fashion. In that regard, we currently do not have an internal audit function, and we will need to hire or contract additional accounting and financial staff with appropriate public company experience and technical accounting knowledge.

We cannot predict or estimate the amount of additional costs we may continue to incur as a result of operating as a public company or the timing of such costs.

***We are an “emerging growth company,” and we cannot be certain if the reduced reporting and disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.***

We are an “emerging growth company,” as defined in the JOBS Act, and we may take advantage of certain exemptions from reporting requirements that are applicable to other public companies that are not “emerging growth companies,” including the auditor attestation requirements of Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a non-binding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. Pursuant to Section 107 of the JOBS Act, as an emerging growth company, we have elected to use the extended transition period for complying with new or revised accounting standards until those standards would otherwise apply to private companies. As a result, our financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies, which may make our common stock less attractive to investors. In addition, if we cease to be an emerging growth company, we will no longer be able to use the extended transition period for complying with new or revised accounting standards.

We will remain an emerging growth company until the earliest of: (1) the last day of the fiscal year following the fifth anniversary of our listing; (2) the last day of the first fiscal year in which our annual gross revenues exceed \$1.235 billion; (3) the date on which we have, during the previous rolling three-year period, issued more than \$1 billion in non-convertible debt securities; and (4) the date on which we are deemed to be a “large accelerated filer” under the rules of the SEC.

We cannot predict if investors will find our common stock less attractive if we choose to rely on these exemptions. For example, if we do not adopt a new or revised accounting standard, our future results of operations may not be comparable to the results of operations of certain other companies in our industry that adopted such standards. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock, and our stock price may be more volatile.

***If our estimates or judgments relating to our critical accounting policies prove to be incorrect, our results of operations could be adversely affected.***

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in our financial statements and accompanying notes appearing elsewhere in this Report. We base our estimates on short duration historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as provided in the section titled “*Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates.*” The results of these estimates form the basis for making judgments about the carrying values of assets, liabilities, and equity, and the amount of revenue and expenses. Significant estimates and judgments involve: legal contingencies; valuation of our common stock and equity awards; and income taxes. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

***Our current insurance coverage may not be adequate, and we may not be able to obtain insurance at acceptable rates, or at all.***

We currently have director and officer liability insurance for our officers and certain directors. We do not carry any key-man life insurance, business liability and other professional liability insurance. Neither have we purchased any property insurance or business interruption insurance. Even if we purchase these kinds of insurance, the insurance may not fully protect us from the financial impact of defending against product liability or professional liability claims that may occur in future. As we are still at the development stage and we have not produced any products yet, we have determined that our current insurance coverage is sufficient for our business operations in the U.S. However, the local government may take an opposite position against us and we may need to purchase additional insurance to operate our business. If we fail to obtain the insurance as required by the local government, or if we were to incur substantial losses or liabilities due to fire, explosions, floods, other natural disasters or accidents or business interruption, our business and results of operations could be materially and adversely affected.

***Our business is subject to the risks of earthquakes, fire, floods and other natural catastrophic events, global pandemics, and interruptions by man-made problems, such as network security breaches, computer viruses or terrorism. Material disruptions of our business or information system resulting from these events could adversely affect our operating results.***

We are vulnerable to damage from catastrophic events, such as natural disasters, power loss, and similar unforeseen events beyond our control. The global pandemics or fear of spread of contagious diseases, such as COVID-19, Ebola virus disease (EVD), Middle East respiratory syndrome (MERS), severe acute respiratory syndrome (SARS), H1N1 flu, H7N9 flu, and avian flu, as well the catastrophic events could disrupt our business operations, reduce or restrict our supply of products and services, incur significant costs to protect our employees and facilities, or result in regional or global economic distress, which may materially and adversely affect our business, financial condition, and results of operations. Actual or threatened war, terrorist activities, political unrest, civil strife, and other geopolitical uncertainty could have a similar adverse effect on our business, financial condition, and results of operations. Any one or more of these events may adversely affect our operation results, or even for a prolonged period of time, which could materially and adversely affect our business, financial condition, and results of operations.

We cannot assure you that we are adequately protected from the effects of earthquakes, fire, floods, typhoons, earthquakes, global pandemics, power loss, telecommunications failures, break-ins, war, riots, network security breaches, computer viruses, terrorist attacks, or similar events. Any of the foregoing events may give rise to interruptions, damage to our property, delays in production, breakdowns, system failures, technology platform failures, or internet failures, which could cause the loss or corruption of data or malfunctions of our internet system as well as adversely affect our business, financial condition, and results of operations.

If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, damaged critical infrastructure, or otherwise disrupted operations, it may be difficult or, in certain cases, impossible for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place are unlikely to provide adequate protection in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which could have a material adverse effect on our business.

## Risks Related to Ownership of Our Common Stock

*The trading market for our common stock is very new, and consistently robust and liquid trading market may not develop or be sustained over the long term.*

We only recently conducted our initial public offering in May 2024, and so the trading market for our common stock is very new and unestablished. If a consistently robust and liquid trading market for our common stock does not develop, you may not be able to sell your shares quickly or at the market price. Our ability to raise capital to continue to fund operations by selling our securities and our ability to acquire other companies or technologies by using our securities as consideration may also be impaired.

*The trading price of our common stock has been and may continue to be very volatile, and you could lose all or part of your investment.*

Since our initial public offering, the market for our common stock has been very volatile, including significant increases and decreases in the price of our stock. The trading price of our common stock is likely to continue to be volatile and could continue to be subject to fluctuations in response to various factors, some of which are beyond our control. These fluctuations could cause you to lose all or part of your investment in our common stock as you might be unable to sell your shares at or above the price you paid in this offering. Factors that could cause fluctuations in the trading price of our common stock include the following:

- price and volume fluctuations in the overall stock market from time to time;
- volatility in the trading prices and trading volumes of nuclear energy stocks;
- changes in operating performance and stock market valuations of other nuclear energy companies generally, or those in our industry in particular;
- sales of shares of our common stock by us or our stockholders;
- failure of securities analysts to maintain coverage of us, changes in financial estimates by securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- the financial projections we may provide to the public, any changes in those projections, or our failure to meet those projections;
- announcements by us or our competitors of new products, features, or services;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- actual or anticipated changes in our results of operations or fluctuations in our results of operations;
- actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;
- litigation involving us, our industry, or both, or investigations by regulators into our operations or those of our competitors;
- developments or disputes concerning our intellectual property or other proprietary rights;
- announced or completed acquisitions of businesses, products, services or technologies by us or our competitors;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- any significant change in our management; and
- general economic conditions and slow or negative growth of our markets.

Notwithstanding the foregoing potential causes of volatility, you are cautioned that specific causes of volatility are never perfectly clear. Moreover, our relatively small public float may amplify the impact the actions taken by a few stockholders have on the price of our common stock, which may cause the price of our common stock to deviate, potentially significantly, from a price that better reflects the underlying performance of our business.

Also, in recent years, the stock markets generally have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of listed companies. Broad market and industry factors may significantly affect the market price of our common stock, regardless of our actual operating performance. These fluctuations may be even more pronounced in the trading market for our common stock shortly after your investment. Volatility in our common stock could lead to the loss of some or all of your investment.

In addition, in the past, following periods of volatility in the overall market and in the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

***If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.***

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. If only a limited number of securities or industry analysts commence coverage of our company, the trading price for our stock could be negatively impacted. If one or more of the analysts who covers us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price and trading volume to decline.

***Future sales of our securities or warrants exercisable for our common stock may depress our stock price.***

Sales of a substantial number of shares of our common stock or securities convertible into our common stock in the public market, or the perception that these sales could occur, could adversely affect the market price of our common stock and could materially impair our ability to raise capital through equity offerings in the future.

We have issued underwriter's warrants to purchase shares in connection with our May 2024 initial public offering, and two underwritten follow-on offerings in July and October 2024 ("July and October Offerings"), respectively, to purchase up to an aggregate of 364,139 shares of common stock. In connection with the July and October Offerings and our November 2024 private placement offering, we issued warrants to investors to purchase up to an aggregate of 4,235,148 shares of common stock with a weighted-average exercise price of \$22.68 per share. If a large number of shares of our common stock are issued upon exercise of the outstanding warrants in the public market, this could reduce the trading price of our common stock, perhaps significantly, and impede our ability to raise future capital.

***Our failure to meet the continued listing requirements of Nasdaq could result in a delisting of our common stock.***

If we fail to satisfy the continued listing requirements of Nasdaq, such as the corporate governance requirements or the minimum closing bid price requirement, Nasdaq may take steps to delist our common stock. Such a delisting would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with listing requirements would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the Nasdaq minimum bid price requirement or prevent future non-compliance with Nasdaq's listing requirements.

***Our directors, executive officers and principal stockholders have substantial control over us and could delay or prevent a change of corporate control.***

Our directors, executive officers and holders of more than 5% of our common stock, together with their affiliates, beneficially own, in the aggregate, approximately 33.19% of our outstanding common stock as of December 27, 2024. As a result, these stockholders, acting together, have the ability to control the outcome of matters submitted to our stockholders for approval, including the election of directors and any merger, consolidation or sale of all or substantially all of our assets. In addition, these stockholders, acting together, have the ability to control the management and affairs of our company. Accordingly, this concentration of ownership could harm the market price of our common stock by:

- delaying, deferring or preventing a change of control of us;
- impeding a merger, consolidation, takeover or other business combination involving us; or
- discouraging a potential acquiror from making a tender offer or otherwise attempting to obtain control of us.

See “*Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*” below for more information regarding the ownership of our outstanding stock by our executive officers, directors and holders of more than 5% of our common stock, together with their affiliates.

***Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our financial condition and results of operations.***

We will be subject to income taxes in the United States, and our domestic tax liabilities will be subject to the allocation of expenses in differing jurisdictions. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- tax effects of stock-based compensation;
- costs related to intercompany restructurings; or
- changes in tax laws, regulations or interpretations thereof.

In addition, we may be subject to audits of our income, sales and other transaction taxes by federal, state and local authorities. Outcomes from these audits could have an adverse effect on our financial condition and results of operations.

***Anti-takeover provisions in Nevada law could discourage, delay or prevent a change in control of our company and may affect the trading price of our common stock.***

Some of the provisions of Nevada law may have the effect of delaying, deferring or discouraging another person from acquiring control of our company or removing our incumbent officers and directors. These provisions are expected to discourage certain types of coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection against an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging such proposals.

***We have never paid dividends on our capital stock, and we do not anticipate paying dividends for the foreseeable future.***

We have never declared or paid any cash dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future. The payment of dividends, if any, in the future is within the discretion of our board of directors and will depend on our earnings, capital requirements and financial condition and other relevant facts. We currently intend to retain all future earnings, if any, to finance the development and growth of our business. Accordingly, you must rely on the sale of your common stock after price appreciation, which may never occur, as the only way to realize any future gain on your investment.

***Our bylaws designate certain courts as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.***

Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, a state or federal court located in the State of Nevada shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of our company, (ii) any action asserting a claim for breach of a fiduciary duty owed by any director, officer or other employee of our company to us or our stockholders, (iii) any actions asserting a claim arising pursuant to any provision of the NRS, our Articles of Incorporation or our amended and restated bylaws, in each case as amended, or (iv) any action asserting a claim governed by the internal affairs doctrine, in each such case subject to such court having personal jurisdiction over the indispensable parties named as defendants therein (the "Nevada Forum Provision"). This, however, shall not apply to claims or causes of action brought to enforce a duty or liability created by the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, or any other claim for which the federal courts have exclusive jurisdiction. Our bylaws further provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the sole and exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act of 1933, as amended (the "Federal Forum Provision"). In addition, our bylaws provide that any person or entity purchasing or otherwise acquiring any interest in shares of our common stock is deemed to have notice of and consented to the Nevada Forum Provision and the Federal Forum Provision.

Section 27 of the Securities Exchange Act of 1934, as amended, creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. As a result, the Nevada Forum Provision will not apply to suits brought to enforce any duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. We note, however, that there is uncertainty as to whether a court would enforce this provision and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

We recognize that the Nevada Forum Provision and the Federal Forum Provision in our bylaws may impose additional litigation costs on stockholders in pursuing any such claims, particularly if the stockholders do not reside in or near the State of Nevada. Additionally, the Nevada Forum Provision and the Federal Forum Provision may limit our stockholders' ability to bring a claim in a forum that they find favorable for disputes with us or our directors, officers or employees, which may discourage such lawsuits against us and our directors, officers and employees even though an action, if successful, might benefit our stockholders. If the Federal Forum Provision is found to be unenforceable, we may incur additional costs associated with resolving such matters. The Federal Forum Provision may also impose additional litigation costs on stockholders who assert that the provision is not enforceable or invalid. The competent courts of the State of Nevada and the United States District Court may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments may be more or less favorable to us than our stockholders.

## **ITEM 1B. Unresolved Staff Comments**

Not Applicable

## **ITEM 1C. Cybersecurity**

### *Risk Assessment and Strategy*

Our management evaluates cybersecurity risk from computer viruses and more sophisticated and targeted cyber-related attacks such as ransomware, as well as cybersecurity failures resulting from human error and technological errors. Such risks are reviewed on a periodic basis as deemed appropriate.

Our overall strategy in combatting known cybersecurity risks includes a variety of individual tactics, including:

- the use of antivirus software, as well as other software to prevent and detect data intrusions.
- the installation of updates and patches as they are available and maintaining the current versions of major software to reduce the exposure to vulnerabilities.
- if necessary, the use of third-party security experts if and when an incident is detected

We are not aware of having experienced any material cybersecurity incidents. We are not aware of any existent cybersecurity threats that would materially affect, or are reasonably likely to materially affect, our business strategy, results of operations or financial conditions.

### *Board Oversight*

Our board of directors has yet to establish any formal committees related to cybersecurity risks. Management updates our board of directors regarding cybersecurity risks as necessary.

## **ITEM 2. Properties**

Our principal executive office, including our headquarters, is located at 10 Times Square, 30th Floor, New York, NY 10018, covering approximately 7,800 square feet. We lease this office under a long-term lease commencing from April 1, 2024 through July 31, 2031, with the monthly lease rent of \$33,605 to be increased by 2.5% on an annual basis.

In August 2024, we purchased a 1.64-acre land package in the historic Heritage Center Industrial Park in Oak Ridge, Tennessee for \$1.7 million. The purchase includes a 14,000 sq. ft., 2-story building to house our Nuclear Technology Headquarters. Situated in a world-class location for innovative nuclear technology research and development, this facility will serve as the central hub for our advanced nuclear technology design and engineering capabilities. The Nuclear Technology Headquarters is near the Oak Ridge National Laboratory, the Spallation Neutron Source, the National Transportation Research Center, and The University of Tennessee's Center of Excellence in Engineering. We expect to grow the number of personnel working at the facility over the next year and expect to ultimately employ up to 30 personnel at the facility.



### **ITEM 3. Legal Proceedings**

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 our business and prospects, including our progress toward microreactor development. The plaintiff seeks to represent a class of certain persons who purchased or otherwise acquired our common stock during the period from May 8, 2024 through July 18, 2024 and seeks unspecified damages and other relief. On October 28, 2024, the court entered an order appointing Hongyu Xie as lead plaintiff. On November 4, 2024, the court entered a scheduling order for the filing of lead plaintiff's amended complaint and a briefing schedule for our anticipated motion to dismiss, under which lead plaintiff must file an amended complaint by January 6, 2025, and we must file a motion to dismiss by February 21, 2025. We dispute the allegations in the complaint and intend to defend the case vigorously. The case is at an early stage and we cannot reasonably estimate the amount of any potential financial loss or cost that could result from the lawsuit.

In addition, on August 23, 2024, a putative shareholder derivative lawsuit was filed purportedly on behalf of our company, as nominal defendant, against certain of our directors and officers in the Eighth Judicial District Court of Clark County, Nevada, captioned *William Latza, Derivatively on Behalf of Nano Nuclear, Inc. v. James Walker, et al.*, No. A-24-900423-C. The complaint asserted claims for alleged breach of fiduciary duties and corporate waste, among others, related to statements concerning our business and prospects. On November 15, 2024, we filed a motion to dismiss pursuant to Rule 23.1 of the Nevada Rules of Civil Procedure based on plaintiff's lack of standing, and the director and officer defendants filed a motion to dismiss pursuant to Rule 12(b)(5) of the Nevada Rules of Civil Procedure based on plaintiff's failure to state a claim upon which relief can be granted. On December 20, 2024, plaintiff filed an amended complaint. The amended complaint alleges claims for alleged breach of fiduciary duties, corporate waste, market manipulation, and racketeering, among others, related to our business and prospects, including our progress toward microreactor development, the qualifications of our management, and our investment in LIS Technologies Inc.

On behalf of our company, the plaintiff seeks damages from the director and officer defendants and an order directing our company to take actions to reform and improve corporate governance and internal procedures. The director and officer defendants deny all allegations of liability and intend to vigorously defend against all claims. Given the preliminary stage of the lawsuit and the inherent uncertainties of litigation, we cannot determine with certainty the outcome of the case at this time.

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

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

### **ITEM 4. Mine and Safety Disclosure**

Not applicable.

## PART II

### ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

#### Market Information

Our common stock trades on the Nasdaq Stock Market under the symbol "NNE."

#### Holders of Record

As of December 27, 2024, we had 39 holders of record of our common stock.

#### Dividend Policy

We have never declared or paid any cash dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future. The payment of dividends, if any, in the future is within the discretion of our board of directors and will depend on our earnings, capital requirements and financial condition and other relevant facts. We currently intend to retain all future earnings, if any, to finance the development and growth of our business.

Under NRS 78.288, the directors of a corporation may authorize, and the corporation may make, distributions (including cash dividends) to stockholders, but no such distribution may be made if, after giving it effect:

- the corporation would not be able to pay its debts as they become due in the usual course of business; or
- the corporation's total assets would be less than the sum of (x) its total liabilities plus (y) the amount that would be needed, if the corporation were to be dissolved at the time of distribution, to satisfy the preferential rights upon dissolution of stockholders whose preferential rights are superior to those receiving the distribution.

The NRS prescribes the timing of the determinations above depending on the nature and timing of payment of the distribution. For cash dividends paid within 120 days after the date of authorization, the determinations above must be made as of the date the dividend is authorized. When making their determination that a distribution is not prohibited by NRS 78.288, directors may consider:

- financial statements prepared on the basis of accounting practices that are reasonable in the circumstances;
- a fair valuation, including, but not limited to, unrealized appreciation and depreciation; and/or
- any other method that is reasonable in the circumstances.

#### Recent Sales of Unregistered Securities

During the past three years, we issued securities that were not registered under the Securities Act as set forth below. The offers, sales and issuances of the securities described below were exempt from registration either (i) under Section 4(a)(2) of the Securities Act and the rules and regulations promulgated thereunder in that the transactions were between an issuer and sophisticated investors or members of its senior executive management and did not involve any offering within the meaning of Section 4(a)(2), or (ii) under Regulation S promulgated under the Securities Act in that offers, sales and issuances were not made to persons in the United States and no directed selling efforts were made in the United States, or (iii) under Rule 144A under the Securities Act in that the shares were offered and sold by the initial purchasers to qualified institutional buyers, or (iv) under Rule 701 promulgated under the Securities Act in that the transactions were under compensatory benefit plans and contracts relating to compensation.

In February 2022, we issued 10,000,000 shares of common stock to I Financial Ventures Group LLC, of which our President, Secretary, Treasurer, and Chairman of the Board of Directors, Jay Jiang Yu, is the sole shareholder and director, and received proceeds of \$50,000.

Between March 2022 and April 2022, we issued an aggregate of 7,500,000 shares of common stock to certain members of our management team and certain investors, and received an aggregate proceeds of \$375,000.

Between February 2022 and September 2022, we issued an aggregate of 675,000 shares of common stock to certain consultants for services received.

Between April 2022 and February 2023, we issued an aggregate of 4,146,869 shares of common stock to certain investors, and received an aggregate proceeds of \$4,146,869.

Between April 2023 and September 2023, we issued an aggregate of 2,778,000 shares of common stock to certain investors, and received an aggregate proceeds of \$6,945,000.

In January 2024, we issued an aggregate of 822,144 shares of common stock to certain investors, and received an aggregate gross proceeds of \$2,466,437, of which \$2,106,437 was received in advance as of December 31, 2023, and \$360,000 was received in January 2024.

In June 2024, we issued an aggregate of 50,000 shares of common stock to Dr. Maidana as consideration for the ALIP Acquisition.

In August 2024, we issued an aggregate of 20,000 shares of common stock to certain consultants for services received.

In August 2024, we issued an aggregate of 250,000 shares of common stock to consultants who exercised their outstanding stock options.

In September 2024, we issued an aggregate of 343,000 shares of common stock to consultants who exercised their outstanding stock options.

In October 2024, we issued an aggregate of 230,000 shares of common stock to consultants who exercised their outstanding stock options.

In November 2024, we issued an aggregate of 15,000 shares of common stock to consultants who exercised their outstanding stock options.

In December 2024, we issued an aggregate of 120,000 shares of common stock to consultants who exercised their outstanding stock options.

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

## Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

## ITEM 6. [Reserved]

## ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

*The following discussion should be read in conjunction with our consolidated financial statements and the related notes contained elsewhere in this Report and in our other Securities and Exchange Commission filings. The following discussion may contain predictions, estimates, and other forward-looking statements that involve a number of risks and uncertainties, including those discussed under "Risk Factors" and elsewhere in this Report. These risks could cause our actual results to differ materially from any future performance suggested below.*

### Overview

We are an emerging, pre-revenue nuclear energy company developing smaller, cheaper, and safer advanced portable clean energy solutions, utilizing proprietary reactor designs, intellectual property and research methods, to 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 materials, to fuel processing, 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 processing 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.

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

In light of approximately \$122 million in net proceeds we generated from our May 2024 initial public offering, our July and October Offerings, and our November 2024 private placement, over the next twelve months, we will continue to progress the development of our advanced microreactors, and our vertically integrated fuel processing business, with estimated expenditures to be approximately \$40 million. This allocation comprises approximately \$25 million dedicated to the research, development, and physical test work of our microreactors and other technologies, such as our fuel transportation system. A further allocation of approximately \$10 million will be allocated to the development of our planned HALEU fuel processing facilities alongside LIST, the related-party uranium enrichment company with whom we collaborate and in which we've made a strategic investment. The remaining approximately \$5 million is earmarked for miscellaneous costs essential to propelling the progress of our microreactors, encompassing the support of current personnel engaged in executive, finance, accounting, and other administrative functions. We may also utilize our cash resources raised in 2024 for acquisitions of complementary businesses or assets.

We estimate that our microreactor demonstration work will be conducted and built between 2025 and 2027, our formal microreactor licensing application will be submitted between 2026 and 2029, and our microreactors will be launched between 2030 and 2031, unless the Advance Act succeeds to reduce the licensing time. Notwithstanding the foregoing, there is no assurance that we can meet successfully the above-mentioned timelines. We also plan on providing nuclear service support and consultation services in 2025 for the expanding and resurgent nuclear energy industry, both domestically and internationally. As part of our efforts domestically, following our collaboration with Digihost in December 2024, we expect to provide consulting services to Digihost beginning in the first quarter of 2025. These services will support the planning and execution of the Digihost project and will encompass regulatory advice, site assessment, roadmap development, and stakeholder engagement. In addition to these rendered services, we are examining strategic acquisitions to expand our business and consultancy services. We have commenced several material discussions with potential targets for such acquisitions, but as of the date of this Report, we have not entered into any definitive agreements for such acquisitions. In combination with our intention to acquire existing revenue generating consultancy businesses, we are focusing on building our own internal nuclear consultation business in coordination with certain outside academic institutions, which we anticipate would require approximately \$2 million over the next twelve months to recruit additional staff and build corresponding infrastructure to be capable of providing these services. 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 estimates are inherently subject to significant risks and change due to unforeseen circumstances, operational challenges, adjustments in the microreactor development plan and uncertainties associated with the licensing approval process, and other factors beyond our control. 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.

## 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 detailed design 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 Processing Facility*

We have potentially 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 processing facility to supply fuel 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.

### *Development of Fuel Transportation Business*

We intend to produce a regulatorily licensed, high-capacity HALEU transportation system, capable of moving commercial quantities of HALEU fuel around North America. We hope to have our fuel transportation business in operation by 2028. We received an exclusive license for a high capacity HALEU fuel transportation basket design in April 2024, which will form the basis of a complete transportation system to move a range of fuel types. 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 could potentially enable us to transport enriched HALEU material in various forms. 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.

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

We expect to start providing nuclear service support and consultation services for the nuclear energy industry in 2025, both domestically and internationally. As part of our efforts domestically, following our collaboration with Digihost in December 2024, we expect to provide consulting services to Digihost beginning in the first quarter of 2025. These services will support the planning and execution of the Digihost project and will encompass regulatory advice, site assessment, roadmap development, and stakeholder engagement. In addition to these rendered services, we are examining strategic acquisitions to expand our business and consultancy services. We have commenced several material discussions with potential targets for such acquisitions, but as of the date of this Report, we have not entered into any definitive agreements for such acquisitions. In combination with our intention to acquire existing revenue generating consultancy businesses, we are focusing on building our own internal nuclear consultation business in coordination with certain outside academic institutions, which we anticipate would require approximately \$2 million over the next twelve months to recruit additional staff and build corresponding infrastructure to be capable of providing these services. 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 approximately 2030 or 2031. Manufacturing facilities will begin construction during the licensing phase so we are ready to deploy microreactors across the country upon subsequent approval of a manufacturing license. 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. 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. The 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. 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 has 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.

## *Technology Acquisitions and Collaborations*

During 2024, we have made announcements regarding our acquisition of a complementary nuclear pump technology (the ALIP technology), our acquisition of the USNC Assets as well as our execution of several 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 complimentary assets, business and technology for our company. Our inability to grow our company through such acquisition or collaborations could have a material adverse effect on our business prospects.

## **Results of Operations**

### ***Comparison of the Year Ended September 30, 2024, and the Year Ended September 30, 2023***

#### ***Revenue***

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

#### ***Expenses***

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

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

Research and development expenses increased by \$2,191,565, or 143%, to \$3,725,565 for the year ended September 30, 2024, compared to \$1,534,000 for the comparative period ended September 30, 2023, primarily due to our acquisition of the ALIP technology which was expensed during the year ended September 30, 2024 in the amount of \$1,673,000 compared to the year ended September 30, 2023. Research and development expenses primarily reflect the internal and external personnel costs corresponding to the design and analysis of our microreactors as well as the costs to acquire technology and other assets from third parties. During the years ended September 30, 2024 and 2023, \$0 and \$420,563, respectively, of our research and development expenses corresponded to equity-based compensation.

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

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

General and administrative expenses increased by \$2,101,598, or 44%, to \$6,850,993 for the year ended September 30, 2024, compared to \$4,749,395 for the comparative period ended September 30, 2023, primarily due to additional office and staff costs to support our research and development activities during the year ended September 30, 2024 compared to the year ended September 30, 2023. During the year ended September 30, 2024, general and administrative expenses primarily consisted of \$2.7 million in personnel costs. During the year ended September 30, 2023, general and administrative expenses primarily consisted of \$3.1 million in personnel costs. During the years ended September 30, 2024 and 2023, \$320,257 and \$1,963,440, respectively, of our general and administrative 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 (\$66,000) for the year ended September 30, 2024, compared to \$nil for the comparative period ended September 30, 2023, as a result of our acquisition of the ALIP technology on June 21, 2024.

#### *Other Income*

During the years ended September 30, 2024 and 2023, we earned interest income of \$359,002 and \$32,994, respectively, on its cash held at a financial institution.

#### **Liquidity and Capital Resources**

We believe that our existing cash and cash equivalents will fund our current operating, research and development and business development plans through at least the next twelve months from the date of this Report. Although we have negative operating cash outflows of \$8,464,146 for the year ended September 30, 2024, and \$3,867,573 for the year ended September 30, 2023, we had approximately \$29 million in cash and cash equivalents as of September 30, 2024 (compared to approximately \$7.0 million as of September 30, 2023) and working capital of approximately \$28 million as of September 30, 2024 (compared to approximately \$6.9 million as of September 30, 2023). In addition, we received net proceeds of approximately \$37.2 million from our October 2024 underwritten follow-on offering as well as net proceeds of approximately \$55.1 million from our November 2024 private placement.

However, the future development of our business towards ultimate commercialization of our products will require significant additional amounts of capital resources. Since we do not anticipate generating meaningful revenues for several years, we intend to finance our future cash requirements for capital expenditures, research and development and business development activities, any acquisitions we may undertake and general working capital through cash on hand and 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, or if outstanding warrants are exercised for cash, our existing stockholders would suffer dilution, perhaps significantly so. 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 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 consolidated financial statements included in this Report are issued. We have incurred significant operating losses since our inception, and as of September 30, 2024 we had an accumulated deficit of approximately \$17.4 million and negative operating cash flow during fiscal 2024 and fiscal 2023. Management expects that operating losses and negative cash flows will likely increase from the 2024 levels because of additional costs and expenses related to our research and development and business development activities. Our continued solvency is dependent upon our ability to obtain additional working capital to complete development, regulatory licensing and effective commercialization of our products and technology in development.

To date, we have not generated any revenue. We do not expect to generate any meaningful revenue unless and until we are able to complete development, regulatory licensing and effective commercialization of our products and technology in development. We will require additional capital to develop our reactors and to fund operations for the foreseeable future. Particularly in light of our significant capital raising activity in 2024, we believe that our existing cash is sufficient to support our business plan in the near-term. However, as our business plans and industry are rapidly evolving, certain costs are not reasonably estimable at this time.

Management is of the opinion that sufficient working capital is on hand or available to meet our company's liabilities and commitments as they come due for the next twelve months after the date of this Report so as to conform to the going concern uncertainty period. In order to achieve our company's long-term strategy, we expect to raise additional capital or secure other sources of financing to support our plans and growth.

## Summary Statement of Cash Flows for the Years Ended September 30, 2024 and 2023

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

|   | For the Year Ended<br>September 30, 2024 | For the Year Ended<br>September 30, 2023 |
|---|--|--|
| Net cash used in operating activities     | \$ (8,464,146)                           | \$ (3,867,573)                           |
| Net cash provided by investing activities | (3,700,000)                              | -  |
| Net cash provided by financing activities | 33,718,608                               | 8,690,369                                |
| Net increase in cash                      | <u>21,554,462</u>                        | <u>4,822,796</u>                         |

### Cash Flows used in Operating Activities

Net cash used by operating activities for the year ended September 30, 2024 was \$8,464,146, which consisted of our net loss of \$10,151,556, net of non-cash items of \$1,213,682, and net of changes in working capital accounts. Net cash used by operating activities for the year ended September 30, 2023 was \$3,867,573, which consisted of our net loss of \$6,250,401, net of non-cash items of \$2,384,003, and net of changes in working capital accounts. Our cash used in operating activities increased by \$4,596,573 during the year ended September 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 year ended September 30, 2024, when compared to the year ended September 30, 2023, was primarily due to increased research and development activities and additional office and staff costs to support our research and development activities during the year ended September 30, 2024 compared to the year ended September 30, 2023.

### Cash Flows used in Investing Activities

Net cash used by investing activities for the year ended September 30, 2024 was \$3,700,000, which consisted of \$1,700,000 used to purchase a 14,000 sq. ft., 2-story building in Oak Ridge, Tennessee to house our Nuclear Technology Headquarters, and \$2,000,000 as a strategic equity investment into LIS Technologies Inc. (a related party). During the year ended September 30, 2023, we did not use any cash in investing activities.

### Cash Flows provided by Financing Activities

Net cash provided by financing activities for the year ended September 30, 2024 was \$33,718,608, which consisted of \$34,953,937 in cash received from the issuance of shares of common stock less \$3,554,829 in offering costs. Net cash provided by financing activities for the year ended September 30, 2023 was \$8,690,369, which consisted of cash received from the issuance of shares of common stock less deferred offering costs paid.

### Commitments

We are a party to one long-term operating lease for our corporate headquarters. We have one lease commitment corresponding to our corporate headquarters as of September 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 September 30, 2024 and 2023, we have not engaged in any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Leases

We recognize 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 September 30, 2024, we have one long-term operating lease. As of September 30, 2023, we have 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. We use our 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. Our short-term lease relates to office facilities which did not meet the criteria for capitalization as of September 30, 2024 and September 30, 2023.

**ITEM 7A. Quantitative and Qualitative Disclosure About Market Risk**

As a “smaller reporting company” we are not required to provide information required by this Item.

**ITEM 8. Financial Statements and Supplementary Data**

Reference is made to pages F-1 through F-21 comprising a portion of this Report, which are incorporated herein by reference.

**ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

**ITEM 9A. Controls and Procedures**

*Evaluation of Disclosure Controls and Procedures*

Our management conducted an evaluation, under the supervision and with the participation of our Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”), of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Based upon that evaluation, our CEO and CFO concluded that, as of September 30, 2024, our disclosure controls and procedures were effective to provide reasonable assurance that the information required to be disclosed by our company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and that such information is accumulated and communicated to the officers who certify our financial reports and to the members of our senior management and board of directors as appropriate to allow timely decisions regarding required disclosure.

*Management’s Annual Report on Internal Controls over Financial Reporting*

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in the Exchange Act. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements prepared for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements.

Under the supervision and with the participation of our CEO and CFO, our management conducted an evaluation of the effectiveness of our internal control over financial reporting. Based on that evaluation, management concluded that our internal control over financial reporting was effective as of September 30, 2024.

In addition, because we are an “emerging growth company” as defined under the terms of the JOBS Act of 2012, our independent registered public accounting firm is not required to issue an attestation report on our internal control over financial reporting.

***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 year ended September 30, 2024, that materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

***Inherent Limitations on Internal Controls***

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness for future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. No evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected.

**ITEM 9B. Other Information**

Not Applicable.

**ITEM 9C. Disclosure Regarding Foreign Jurisdictions That Prevent Inspections**

Not Applicable.

## PART III

### ITEM 10. Directors, Executive Officers and Corporate Governance

Listed below are the names of the directors and executive officers of the Company, their ages as of the date of this Report, their positions held and the year they commenced service with the Company.

| Name             | Age | Position  |
|------------------|-----|---|
| James Walker     | 41  | Chief Executive Officer, Head of Reactor Development and Director       |
| Jay Jiang Yu     | 44  | President, Secretary, Treasurer, and Chairman of the Board of Directors |
| Jaisun Garcha    | 44  | Chief Financial Officer   |
| Dr. Tsun Yee Law | 41  | Independent Director  |
| Diane Hare       | 35  | Independent Director  |
| Dr. Kenny Yu     | 37  | Independent Director  |

#### Biographies of Executive Officers and Directors

**James Walker** has been our Chief Executive Officer, Head of Reactor Development and director since 2022. Mr. Walker has over seventeen years of engineering project management experience across various industries, such as construction, mechanical engineering, and nuclear engineering. Since 2020, Mr. Walker has served as the senior executive manager at Ares, where he is responsible for the construction of plants, purchases of land, operations, marketing, financing, safety regulation compliance, and shareholder relations. He is also concurrently serving on the board of directors of several small-cap publicly traded companies in Canada, including Bayhorse Silver Inc. (Ticker: BHS, Canada: TSX Venture) and Xander Resources, Inc. (Ticker: XND, Canada: TSX Venture), and serves as a consultant to LIST. From 2016 to 2020, Mr. Walker served as the head of company strategy of Lithium Energy Products (or Lithium), a company primarily engaged in the exploration of lithium prospects, where he oversaw the company's projects, resource allocation, grant submissions, and collaborative ventures. Prior to joining Lithium, from 2013 to 2016, Mr. Walker was an engineering project manager for the United Kingdom's Ministry of Defence (or the Ministry of Defence). While there, he was responsible for infrastructure projects and worked in each stage of the nuclear product life cycle, from concept to decommissioning. At the Ministry of Defence, Mr. Walker was primarily engaged in design, modelling, rigs, testing, and problem shooting. He also managed multidisciplinary teams involving engineers, managers, contractors and finance and commercial personnel, and served as the project lead and manager for the building of a nuclear material reclamation plant, and as the engineering manager for constructing factories and facilities designed to manufacture reactor cores. Between 2012 and 2013, Mr. Walker was seconded and worked as a nuclear physicist at Rolls-Royce, leading a project to model various configurations of Rolls-Royce's Zero-Power reactor using probabilistic physics software to digitally replicate real-world behavior and determine program accuracy margins. Prior to this role, Mr. Walker served as a mechanical engineer and a nuclear engineer at the Ministry of Defence.

Mr. Walker holds a Bachelor of Engineering degree in Mechanical Engineering from the University of Nottingham, a Master of Science degree in Mining Engineering from the University of Exeter, and a Master of Science degree in Nuclear Engineering from Cranfield University. He is also a Chartered Engineer (CEng, issued 2014) with the IMechE, a Professional Engineer (PEng, issued 2023) with the Canadian Council of Professional Engineers, qualified Project Manager with APM in 2015, and a Chartered Physicist with the Institute of Physics in 2023. We believe that Mr. Walker is well qualified to serve as a director of our company because of his extensive experience within the nuclear industry and with public markets and the operation of public and private companies.

**Jay Jiang Yu** is our founder, and has been our President, Secretary and Treasurer, and Chairman of the Board since 2022. Since 2022, Mr. Yu has served as president and chairman of the board of LIST. Since 2022, Mr. Yu has been the chairman of the board of directors of St. James Gold Corp. (or St. James Gold), a Canadian-based publicly traded company (Ticker: LORD, Canada: TSX Venture) engaged in the acquisition, exploration, and development of mineral properties. Since 2008, Mr. Yu has served as the chief executive officer and chairman of the board of directors of I Financial Ventures Group, a corporate advisory and start-up consulting business that advises private and public companies. Mr. Yu is also the founder and chief executive officer of Lunar NYC Inc., a youth-focused 501(c)(3) non-profit organization. Earlier in his career, Mr. Yu worked as an analyst in the Corporate & Investment Banking Division at Deutsche Bank, on Wall Street in New York City.

Mr. Yu holds a bachelor's degree in psychology from the City College of New York. He has completed core classes from Borough of Manhattan Community College and has taken continuing education classes at Columbia University. We believe Mr. Yu is qualified to serve as a director of our company because of his experience with public companies, capital fundings, structured financing, and other business development services. In 2021, Mr. Yu was honored as one of The Outstanding 50 Asian Americans in Business.

**Jaisun Garcha** has been our Chief Financial Officer since 2022. Mr. Garcha has extensive experience and knowledge in financial management, corporate governance, and risk management for public and private companies. Since 2022, Mr. Garcha has served as the part time chief financial officer and a director at LIST. From March 2022 to October 2024, Mr. Garcha served as the chief financial officer of St. James Gold ("St. James"), a Canada-based publicly traded company (Ticker: LORD, Canada: TSX Venture) engaged in mining exploration. From February 2013 to October 2024, Mr. Garcha served as the chief financial officer of Snipp Interactive Inc. ("Snipp Interactive"), a Canada-based publicly traded company (Ticker: SPN, Canada: TSX Venture) engaged in global loyalty and promotion solutions. Prior to this, Mr. Garcha served as the chief financial officer or senior financial consultant of various private and public companies in a wide spectrum of sectors including but not limited to mining, oil and gas exploration, and venture capital. Mr. Garcha began his career as an accountant in 2001. Over the course of his twenty-year career, Mr. Garcha has assisted several companies in going public through initial public offerings and reverse takeovers. Mr. Garcha is a Chartered Professional Accountant (CPA), Certified General Accountant (CGA) and holds a Bachelor of Science degree from the University of British Columbia and a Master of Business Administration from Laurentian University.

**Dr. Tsun Yee Law** has been our director since 2022. Dr. Law is a physician who holds professional memberships in Doctors for Nuclear Energy and the American College of Nuclear Medicine. Since 2022, Dr. Law has served as a director at LIST. Since 2014, Dr. Law has practiced orthopedic medicine in South Florida, specializing in hip and knee osteoarthritis. He is actively engaged in clinical research with a special focus on robotic and sensor technologies, medical innovation, and healthcare investments. Dr. Law has served as a physician consultant for Flagler Healthcare Investment Property Group since 2015 and has served as a physician consultant for Financial Ventures Group since 2017.

Dr. Law has a Bachelor of Business Administration from Davenport University, a Doctorate of Medicine from American Global University School of Medicine, and a Master of Business Administration from Davenport University. We believe that Dr. Law is qualified to serve as a director of our company because of his education background in nuclear medicine and nuclear energy as well as his business background.

**Diane Hare** has been our director since April 28, 2023. Ms. Hare has been the chief executive officer of BizLove LLC (or BizLove), a consultancy firm which she founded in 2018, primarily engaged in helping organizations grow by delivering strategic positioning and cross-functional strategies for transformative moments such as mergers and acquisitions, product and service launches, growth strategies, and digital/data priorities. From 2011 to 2018, Ms. Hare worked at Ernst & Young, where she served the fortune 500 and specialized in purpose-driven enterprise transformation. Ms. Hare holds a Bachelor of Business Administration in Finance from Iona University and received her Maser of Business Administration in Marketing and International Business from Long Island University. We believe Ms. Hare is qualified to serve as a director of our company because of her experience in business strategy consultancy.

**Dr. Kenny Yu** has been our director since May 8, 2023. Dr. Yu is a licensed pharmacist in New York and has been the director of Pharmacy Services at NYU Langone Health since 2021. In this role, he provides executive leadership and coordination for all pharmacy services provided within NYU Langone Health to promote the standardization and alignment of practices across all pharmacy sites. Dr. Yu has also served as Educational Advisory Counsel at Apexus LLC, a company engaged in increasing access to medications and improving patient care nationwide. Dr. Yu was the inaugural director of 340B pharmacy services, a drug pricing program, in 2016. In this role, he managed both the compliance and optimization of the 340B program, which he and his team built from the ground up. Dr. Yu holds a Master of Business Administration from George Washington University and a Doctorate in Pharmacy from the Ernest Mario School of Pharmacy at Rutgers University. We believe that Dr. Yu is qualified to serve as a director of our company because of his experience in analyzing and interpreting financial information.

## Our Executive Advisory Board

We have assembled an Executive Advisory Board comprised of military, scientific and governmental experts. Our Executive Advisory Board provides industry knowledge and important contacts to our management team. The following table sets forth certain information regarding our Executive Advisory Board:

| <b>Name</b>                         | <b>Age</b> | <b>Position</b>  |
|-------------------------------------|------------|--|
| Gen. Wesley K. Clark (Ret.), KBE    | 79         | Chairman of Executive Advisory Board for Military and Defense                                    |
| Dr. Robert Gallucci                 | 78         | Chairman of the Executive Advisory Board for Nuclear Policy                                      |
| Gov. Andrew M. Cuomo                | 67         | Executive Advisory Board Member  |
| Lt. General Terry G. Robling (Ret.) | 70         | Chairman of the Executive Advisory Board for Federal and Defense Appropriations and Requirements |
| Daniel M. Donovan Jr.               | 68         | Chairman of the Executive Advisory Board for Market Intelligence                                 |
| Mark Nichols                        | 55         | Executive Advisor for Military, Defense and Policy   |
| Dr. Lassina Zerbo                   | 61         | Chairman of the Executive Advisory Board for Africa  |
| David Hucceba                       | 69         | Chairman of the Executive Advisory Board for USA   |
| Ruth Jin                            | 49         | Chair of Executive Advisory Board for Corporate Governance                                       |
| Michelle Amante-Harstine            | 68         | Senior Strategic Advisor to the Executive Advisory Board for U.S. Energy Initiatives             |
| Tom Cuce                            | 60         | President of Advanced Fuel Transportation (our subsidiary)                                       |
| Darlene T. DeRemer                  | 69         | Chairwoman of its Executive Advisory Board for Institutional Finance                             |

**Gen. Wesley K. Clark (Ret.), KBE** has been the Chairman of Executive Advisory Board for Military and Defense since 2023. General Clark graduated first in his class from WestPoint Academy in June 1966 with a bachelor's degree, and was awarded a Rhodes Scholarship to the University of Oxford, where he obtained a M.A. degree in Economics. His military career involved multiple commands and spanned three decades, propelling him into the international spotlight.

From 1994 to 1996, he acted as director of strategic plans and policy for the Joint Chiefs of Staff at the Pentagon. General Clark then took the role of the lead military negotiator for the Bosnian Peace Accords in 1995 before serving as the Supreme Allied Commander Europe, the second-highest military position within NATO, from July 1997 to May 2000. In 2000, Gen. Clark received the Presidential Medal of Freedom from President Bill Clinton for his service to the nation, and in 2003 ran for President of the United States. In 2004, Gen. Clark founded and continues to serve as Chairman and Chief Executive Officer of Wesley K. Clark & Associates, a strategic advisory and consulting firm, and in 2009, he co-founded and became chairman of Enverra, Inc., an investment banking firm. Between 2018 and 2019, Gen. Clark served as a Centennial Fellow at Georgetown University. In 2019, Gen. Clark founded Renew America Together, a non-profit intended to promote and achieve greater common ground in America by reducing partisan division and gridlock. Gen. Clark currently also serves Chairman and Founder of Enverra, Inc., a licensed investment bank; Chairman of Energy Security Partners, LLC, an energy security company; as well as a board member for, among other companies, BNK Petroleum, Leagold Mining, and International Crisis Group. He also serves as the Co-Chair of Growth Energy, Chairman of Clean Terra, Inc., and Chairman of City Year Little Rock, an education advocacy group in that city.

**Dr. Robert Gallucci** has been the chairman of our Executive Advisory Board for Nuclear Policy since 2023. Dr. Gallucci previously served as U.S. Ambassador-at-Large and Special Envoy for the U.S. Department of State, focusing on the non-proliferation of ballistic missiles and weapons of mass destruction. He was the chief U.S. negotiator during the North Korean nuclear crisis of 1994, and served as Assistant Secretary of State for Political Military Affairs and as Deputy Executive Chairman of the United Nations Special Commission following the first Gulf War. Upon leaving public service, Dr. Gallucci served as Dean of the School of Foreign Service at Georgetown University for 13 years, and since January 2018, he has been serving as Distinguished Professor in the Practice of Diplomacy at Georgetown University. Dr. Gallucci was named president of the John D. and Catherine T. MacArthur Foundation in 2009. Dr. Gallucci holds a Bachelor of Arts from Stony Brook University, and a Master of Arts and a Doctor of Philosophy from Brandeis University.

**Gov. Andrew M. Cuomo** has been our Executive Advisory Board Member since March 2024. Gov. Cuomo served as the 56th Governor of New York from 2011 to 2021. Before his tenure as governor, he was the Secretary of Housing and Urban Development under President Bill Clinton from 1997 to 2001 and served as New York's Attorney General from 2007 to 2010. Gov. Cuomo oversaw numerous significant initiatives, including the Clean Energy Standard, during his time in office as well as major infrastructure developments like the Mario M. Cuomo Bridge construction and the LaGuardia Airport redevelopment. He supported social initiatives such as the Marriage Equality Act and managed responses to Hurricane Sandy and the COVID-19 pandemic during his time as governor. Gov. Cuomo received a Bachelor of Arts degree from Fordham University and a Juris Doctor degree from Albany Law School.

**Lt. General Terry G. Robling (Ret.)** has been chairman of our Executive Advisory Board for Federal and Defense Appropriations and Requirements since August 2024. Lt. General Robling's 38 years of distinguished service in the United States Marine Corps earned him 31 Department of Defense commendations, including the Order of the Rising Sun from the Emperor of Japan and the Legion of Honour (Rank of Knight) from the President of France. A three-star general, Lt. Gen. Robling culminated his military career as the Commanding General of U.S. Marine Corps Forces, Pacific, where he oversaw all Marine Corps operations in the strategically vital Asia-Pacific region. A naval aviator with over 5,200 flight hours and a graduate of the U.S. Navy Fighter Weapons School ("Top Gun"), Lt. Gen. Robling has participated in numerous combat and operational missions. His leadership roles positioned him as one of the most influential figures in the Marine Corps, responsible for managing large-scale military operations and fostering international partnerships critical to U.S. national security. Following his retirement, Lt. Gen. Robling turned to the private sector, founding a firm specializing in consulting services for large aerospace manufacturers, before eventually taking up the positions of Chief Executive Officer and Chairman of the Board of PKL Services Inc., which he held for over five years. Currently, Lt. Gen. Robling is a strategic advisor to numerous companies and sits on the advisory board of multiple non-profit associations. Lt. General Robling received a Bachelor of Science degree from Central Washington University and a Master's Degree from the National Defense University.

**Daniel M. Donovan Jr.** has been chairman of our Executive Advisory Board for Market Intelligence since August 2024. From 2015 to 2019 he served as a member of the U.S. House of Representatives representing the 11<sup>th</sup> District of New York. During his time in Congress, Mr. Donovan was a vocal advocate for national security, veterans' affairs, and disaster recovery, serving on several key committees and subcommittees. As part of the Committee on Homeland Security, he chaired the Subcommittee on Emergency Preparedness, Response, and Communication, and was also an active member of the Subcommittee on Cybersecurity, Infrastructure Protection, and Security Technologies. Additionally, Mr. Donovan contributed to the Committee on Foreign Affairs, where he served on the Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations, as well as the Subcommittee on the Western Hemisphere. Mr. Donovan also previously serviced as the District Attorney for Richmond County, New York (Staten Island) and as an Assistant District Attorney for New York County. Mr. Donovan received a Bachelor of Arts degree from St. John's University and a Juris Doctor degree from Fordham University.

**Mark Nichols** has been our Executive Advisor for Military, Defense and Policy since 2023. Currently, Mr. Nichols is President of Seven Summits LLC, a strategic advisor firm in Washington D.C. Mr. Nichols has an extensive background in European affairs, energy, infrastructure, commodities, emerging markets, and national security. From 2004 to 2011, Mr. Nichols worked at Wesley K. Clark and Associates, focusing on a variety of projects in the energy, defense, and security sectors. Previously during the Clinton Administration, Mr. Nichols was a senior advisor at the State Department in the Office of the Assistant Secretary for Europe. He worked on the NATO 50<sup>th</sup> Anniversary Summit, The Sarajevo Summit and the Stability Pact for Southeast Europe, a multi-billion dollar program with the EU to rebuild the region after the wars in Bosnia and Kosovo. Mr. Nichols earned a Bachelor of Arts in European History from Bard College and graduated from Columbia University with a master's degree in international affairs (SIPA).



**Dr. Lassina Zerbo** has been the chairman of our Executive Advisory Board for Africa since 2022. Dr. Zerbo is a Burkinabé politician and scientist who served as the Prime Minister of Burkina Faso from 2021 to 2022. Since 1994, he has served as a nuclear science diplomat and a geophysicist, focusing on Africa's responses to global challenges. Dr. Zerbo currently serves as a chairman of the board of directors at the Rwanda Atomic Energy Board, an organization which establishes nuclear facilities based on the international standards, and coordinates the research and implementation of the Centre for Nuclear Science and Technology project. From 2013 to 2021, Dr. Zerbo served as the 3rd Executive Secretary of the Comprehensive Nuclear-Test-Ban Treaty Organization, an interim organization tasked with building up the verification regime of the Comprehensive Nuclear-Test-Ban Treaty in preparation for the treaty's entry into force. Between 1992 and 1994, Dr. Zerbo was a post-doctorate in Airborne Radiometric and Electromagnetic at Geoterrex, Ottawa, and a post-doctorate in Time Domain Electromagnetic and Complex Resistivity at Zonge Engineering and Research Organization in Tucson, Arizona. Dr. Zerbo received a Ph.D. in Geophysics at Université de Paris XI, in Orsay, France in 1992, a Master of Science in Geophysics at Université de Paris VI in Paris, Jussieu, France in 1989, and a bachelor's degree in Fundamental and Applied Geology at Université de Caen in Normandie, France in 1988.

**David Huckeba** has been the chairman of our Executive Advisory Board for the USA since 2022. Mr. Huckeba has been a managing partner of FreightSource LLC, a third-party logistics company engaged in transportation management services, since January 2018. Mr. Huckeba is also currently a partner of Monolith Commercial Group, LLC, a nationwide general contracting firm that specializes in hospitality and hotel renovation. Mr. Huckeba spent 34 years at UPS, where he held various leadership positions in operations, industrial engineering, and corporate transportation planning. Since retiring from UPS in 2010, Mr. Huckeba has started four transportation focused companies, a restaurant and hospitality company with four restaurant concepts, and a hotel and commercial general contracting company. Mr. Huckeba received a Bachelor of Arts in Business from DePaul University.

**Ruth Jin** has been the Chair of Executive Advisory Board for Corporate Governance since 2023. Ms. Jin has 19 years of experience delivering high-quality and business-focused legal solutions to private fund sponsors and asset managers of all sizes and strategies. Her work encompasses a variety of matters, including fund formation, regulatory compliance, exit strategies, private and public securities offerings, forming a SPAC, and guiding portfolio companies for their initial public offerings. In addition, Ms. Jin has extensive experience advising businesses through all stages of growth from start-up and capital raising right through to initial public offering and their ongoing securities law compliance and periodic reporting. Ms. Jin is recognized as Top 10% Attorneys by Lawyers of Distinction and was selected as a Top Rated Lawyer and a Legal Leader by ALM on New York Magazine and New York Law Journal in 2020, 2021, and 2022, respectively. She was also selected as a 2019 Woman Leaders in the Law by ALM on New York Law Journal and New York Magazine and in 2013, she was selected as Rising Star by Super Lawyer magazine, a rating company of outstanding lawyers by Thomson Reuters. Ms. Jin received a Bachelor of Laws from Peking University, a Master of Laws and a Doctor of Juridical Science from University of Tokyo, and a Master of Laws from Georgetown University.

**Michelle Amante-Harstine** has been the Senior Strategic Advisor to the Executive Advisory Board for U.S. Energy Initiatives since 2023. Since 2022, she has been the Chief Executive Officer of Congressional Energy Engagement, LLC., a company engaged in empowering lasting U.S. bi-partisan energy solutions, and since 2023, she has also been serving on the Tennessee Nuclear Energy Advisory Council. Between 2017 and 2020, Ms. Harstine served on the DOE's Office of Nuclear Energy, where she was a Senior Advisor for Stakeholder Engagement, where she developed strategic relationships, designed, developed, and led inaugural initiatives on Capitol Hill, such as the Atomic Wings Lunch & Learns and the Up & Atom Morning Briefings, bringing together Members of Congress, Congressional staff, industry, educational institutions, national laboratories, Embassy representatives and the Administration. With over 25 years of experience in both the public and private sectors spearheading government, business, community and organization initiatives, Ms. Harstine focuses on advanced nuclear technologies through strategic communication engagements among bipartisan Members of Congress and C-level industry and organization leaders. She developed the U.S. Congressional Energy Leaders Forum, monthly by-invitation only bipartisan programs for U.S. Members of Congress and C-Level nuclear energy leaders and has brought them under the American Nuclear Society with the Nuclear Policy Leadership Dinner & Discussion. She previously launched the National K-12 education initiative "Navigating Nuclear: Energizing Our World" with DOE, the American Nuclear Society and Discovery Education, to engage the ORNL and University Students for two-day immersive programs.

**Tom Cuce** has been President of Advanced Fuel Transportation Inc. since 2023. His expertise has been honed by over 25 years of driving transformative supply chain solutions and profitability through strategic planning and process optimization across the global logistics and package delivery industry. Mr. Cuce has held numerous positions with UPS, the multinational shipping and receiving and supply chain management company, including Vice-President of Package Operations and Southern California District Manager, before serving as UPS President of Global Transportation. He currently serves on the Advisory Board of several private companies and is the Founder and President of Summit View Solutions. Mr. Cuce received a Bachelor of Science in Business Administration and Management from Manhattan College.

**Darlene T. DeRemer** has been our Chairwoman of Executive Advisory Board for Institutional Finance since November 2024. With over 25 years of experience as a leading adviser in the financial services industry, Ms. DeRemer has specialized in strategic marketing, product design, and the implementation of innovative service strategies. Ms. DeRemer is the Chair of the ARK Invest ETF Trust Board and co-founder of Grail Partners LLC, where she leads the firm's Boston office. As a senior banker, she focuses on the global asset management industry, advising clients on a wide range of strategic transactions. Before transitioning into investment banking, Darlene led or participated in numerous advisory transactions. Her current clients include institutional and mutual fund managers in the U.S., as well as alternative investment firms seeking to access public markets both domestically and internationally. Previously, Ms. DeRemer ran NewRiver's eBusiness Advisory unit for four years and operated her own strategy firm, DeRemer + Associates, for 18 years. Founded in 1987, DeRemer + Associates was the first consultancy focused on the U.S. mutual fund industry. Darlene holds a BS in finance and marketing (summa cum laude, 1977) and an MBA with distinction (1979) from Syracuse University.

#### *Role of the Executive Advisory Board*

The role of our Executive Advisory Board is to assist our management with general business and strategic planning, leveraging the expertise of its members in nuclear industry, military and governmental matters. The function of the Executive Advisory Board includes, without any limitation, the following:

- leveraging their professional networks and relationships to connect us with key industry stakeholders, potential partners, clients, and other valuable contacts and marketing resources;
- assessing the impact of our programs, projects and events;
- offering ad hoc support and expertise on specific challenges or opportunities as they arise, serving as a valuable resource for our management team;
- serving as a non-political advocate and ambassador for our company, including seeking new business opportunities for us and connecting us with individuals relevant to the development and advancement of our projects.
- offering strategic advice and counsel to our management team based on the members' diverse experiences and expertise, contributing to the formulation and execution of effective business strategies; and
- providing industry-specific knowledge and insights to help us navigate market trends and safety standards, anticipate challenges, and identify opportunities for growth and innovation.

#### *Consulting Agreements with the Members of the Executive Advisory Board*

We have entered into a consulting agreement with each member of our Executive Advisory Board under similar terms and conditions, except for Gov. Andrew M. Cuomo and Mark Nichols. Our arrangement with Gov. Andrew M. Cuomo has been formalized through a consulting agreement with Innovation Strategies LLC, who serves as the manager, and is subject to analogous terms and conditions, and our arrangement with Mark Nichols has also been formalized through a consulting agreement with Seven Summits, LLC, who serves as the president, and is subject to analogous terms and conditions. Our Executive Advisory Board members are not employees of our company; instead, they serve as independent contractors and can resign or be terminated by us at any time. They may pursue any other activities and engagements during their terms of agreements with us.

Pursuant to these consulting agreements, each member of our Executive Advisory Board is entitled to certain cash payments and options to purchase shares of our common stock for services rendered. These agreements also contain customary restrictive covenants relating to confidentiality, non-solicitation, non-disparagement, and indemnification. The term of these agreements is between 18 months and 36 months, commencing from their respective effective dates between August 2022 and August 2023, subject to early termination. During the fiscal years ended September 30, 2024 and 2023, our executive advisory board was paid a total of \$247,500 and \$70,000, respectively.

#### *Option Agreements with the Members of the Executive Advisory Board*

We have entered into stock option agreements with the members of our Executive Advisory Board pursuant to the 2023 Stock Option Plan #2 (as defined below), except for Tom Cuce and Gov. Andrew M. Cuomo who were granted options that are not governed by either our 2023 Stock Option Plan #1 or our Stock Option Plan #2. Under the stock option agreements, each member was granted an option to acquire certain common stock at certain exercise price.

Their options shall fully vest on the effective date of their option agreements and exercisable at any time until their respective expiration date. The following table provides information regarding each stock options held by the named member of our Executive Advisory Board as of the date of this Report.

|                          | <b>Grant Date</b> | <b>Vesting Start date</b> | <b>Number of securities underlying unexercised options vested (#)</b> | <b>Number of securities underlying unexercised options unvested (#)</b> | <b>Options exercise price (\$)</b> | <b>Option Expiration date</b> |
|--------------------------|-------------------|---------------------------|---|---|------------------------------------|-------------------------------|
| Gen. Wesley K. Clark KBE | August 30, 2023   | August 30, 2023           | 125,000   | -   | \$ 3.00                            | August 30, 2026               |
| Gov. Andrew M. Cuomo     | March 13, 2024    | March 13, 2024            | 125,000   | -   | \$ 3.00                            | March 13, 2027                |
| Mark Nichols             | June 7, 2023      | June 7, 2023              | 62,000  | -   | \$ 3.00                            | June 7, 2026                  |
| Ruth Jin                 | June 7, 2023      | June 7, 2023              | 50,000  | -   | \$ 3.00                            | June 7, 2026                  |
| Michelle Amante-Harstine | August 30, 2023   | August 30, 2023           | 50,000  | -   | \$ 3.00                            | August 30, 2026               |
| Tom Cuce                 | August 30, 2023   | August 30, 2023           | 60,000  | -   | \$ 3.00                            | August 30, 2026               |

#### **Family Relationships**

There are no family relationships between or among any of the current directors, executive officers or persons nominated or charged to become directors or executive officers.

#### **Number and Terms of Office of Officers and Directors**

Our business and affairs are organized under the direction of our board of directors. Our board of directors consists of five directors, including two executive directors and three independent directors.

Our bylaws provide that the number of directors will be fixed by the board of directors within a range of between one and fifteen directors. The directors need not be stockholders unless so required by our articles of incorporation. The minimum or maximum number may be increased or decreased from time to time only by an amendment to the bylaws, which power belongs exclusively to our board of directors.

Our officers are appointed by the board of directors and shall hold office at the discretion of the board of directors until their successors are duly elected and qualified, unless sooner removed. Our board of directors is authorized to appoint officers to the offices set forth in our bylaws.

## Director Independence

The Nasdaq listing standards require that a majority of our board of directors be independent. An “independent director” is defined generally as a person who has no material relationship with the listed company (either directly or as a partner, shareholder or officer of an organization that has a relationship with our company). We have three “independent directors” as defined in the Nasdaq listing standards and applicable SEC rules prior to completion of this offering.

Our board has determined that Dr. Tsun Yee Law, Dr. Kenny Yu and Ms. Diane Hare are independent directors under applicable SEC and Nasdaq rules. Our independent directors have regularly scheduled meetings at which only independent directors are present.

## Board Committees

Our board of directors has established an Audit Committee, a Nominating and Corporate Governance Committee and a Compensation Committee. Our board of directors has adopted a charter for each of these three committees. Copies of each committee’s charter have been posted on the Investor Relations section of our website, which are located at [www.nanonuclearenergy.com](http://www.nanonuclearenergy.com). Each of the committees of our board of directors shall have the composition and responsibilities described below. Our board of directors may from time to time establish other committees as it deems appropriate.

### *Audit Committee*

Drs. Kenny Yu, Tsun Yee Law and Ms. Diane Hare serve as members of our Audit Committee with Dr. Tsun Yee Law serving as the chairman of the Audit Committee. Each of our Audit Committee members satisfies the “independence” requirements of the Nasdaq listing rules and meets the independence standards under Rule 10A-3 under the Exchange Act. Our board of directors has determined that Ms. Diane Hare possesses accounting or related financial management experience that qualifies her as an “audit committee financial expert” as defined by the rules and regulations of the SEC. Our Audit Committee oversees our accounting and financial reporting processes and the audits of our financial statements. Our Audit Committee performs several functions, including:

- evaluating the performance, independence and qualifications of our independent registered public accounting firm and determining whether to retain our existing independent registered public accounting firm or engage new independent registered public accounting firm;
- reviewing and approving the engagement of our independent registered public accounting firm to perform audit services and any permissible non-audit services;
- reviewing our annual and quarterly financial statements and reports, including the disclosures contained under the caption “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*,” and discussing the statements and reports with our independent registered public accounting firm and management;
- reviewing with our independent registered public accounting firm and management significant issues that arise regarding accounting principles and financial statement presentation and matters concerning the scope, adequacy and effectiveness of our financial controls;
- reviewing our major financial risk exposures, including the guidelines and policies to govern the process by which risk assessment and risk management is implemented; and
- reviewing and evaluating on an annual basis the performance of the audit committee, including compliance of the audit committee with its charter.

### *Compensation Committee*

Drs. Kenny Yu, Tsun Yee Law and Ms. Diane Hare serve as members of our Compensation Committee with Dr. Tsun Yee Law serving as the chairman of the Compensation Committee. All of our Compensation Committee members satisfy the “independence” requirements of the Nasdaq listing rules and meet the independence standards under Rule 10A-3 under the Exchange Act. The functions of this committee include, among other things:

- reviewing, modifying and approving (or if it deems appropriate, making recommendations to the full board of directors regarding) our overall compensation strategy and policies;
- reviewing and approving the compensation, the performance goals and objectives relevant to the compensation, and other terms of employment of our executive officers;
- reviewing and approving (or if it deems appropriate, making recommendations to the full board of directors regarding) the equity incentive plans, compensation plans and similar programs advisable for us, as well as modifying, amending or terminating existing plans and programs;
- reviewing and approving the terms of any employment agreements, severance arrangements, change in control protections and any other compensatory arrangements for our executive officers;
- reviewing with management and approving our disclosures under the caption “*Compensation Discussion and Analysis*” in our periodic reports or proxy statements to be filed with the SEC; and
- preparing the report that the SEC requires in our annual proxy statement.

### *Nominating and Corporate Governance Committee*

Drs. Kenny Yu, Tsun Yee Law and Ms. Diane Hare serve as members of our Nominating and Corporate Governance Committee with Ms. Diane Hare serving as the chairwoman of the Nominating and Corporate Governance Committee. All of our Nominating and Corporate Governance Committee members satisfy the “independence” requirements of the Nasdaq listing rules and meet the independence standards under Rule 10A-3 under the Exchange Act. The functions of this committee include, among other things:

- identifying, reviewing and evaluating candidates to serve on our board of directors consistent with criteria approved by our board of directors;
- evaluating director performance on the board and applicable committees of the board and determining whether continued service on our board is appropriate;
- evaluating, nominating and recommending individuals for membership on our board of directors; and
- evaluating nominations by stockholders of candidates for election to our board of directors.

The nominating and corporate governance committee takes into account many factors in determining recommendations for persons to serve on the board of directors, including the following:

- personal and professional integrity, ethics and values;
- experience in corporate management, such as serving as an officer or former officer of a publicly-held company;
- experience as a board member or executive officer of another publicly-held company;
- strong finance experience;

- diversity of expertise and experience in substantive matters pertaining to our business relative to other board members;
- diversity of background and perspective including, without limitation, with respect to age, gender, race, place of residence and specialized experience;
- experience relevant to our business industry and with relevant social policy concerns; and
- relevant academic expertise or other proficiency in an area of our business operations.

### **Role of Board in Risk Oversight Process**

Jay Jiang Yu, our President, Secretary, Treasurer, and Chairman of the Board of Directors, beneficially owns approximately 28.70% of the voting power of our common stock as of the date of this Report. Periodically, our board of directors assesses these roles and the board of directors leadership structure to ensure the interests of our company and our stockholders are best served. Our board of directors has determined that its current leadership structure is appropriate. Jay Jiang Yu, our President, Secretary, Treasurer, and Chairman of the Board of Directors, and James Walker, our CEO and director, have extensive knowledge of all aspects of our company, our business and risks.

While management is responsible for assessing and managing risks to our company, our board of directors is responsible for overseeing management's efforts to assess and manage risk. This oversight is conducted primarily by our full board of directors, which has responsibility for general oversight of risks, and standing committees of our board of directors. Our board of directors satisfies this responsibility through full reports by each committee chair regarding the committee's considerations and actions, as well as through regular reports directly from officers responsible for oversight of particular risks within our company. Our board of directors believes that full and open communications between management and the board of directors are essential for effective risk management and oversight.

### **Compensation Committee Interlocks and Insider Participation**

None of our executive officers serves, or in the past has served, as a member of our board of directors compensation committee, or other committee serving an equivalent function. None of the members of our compensation committee is, or has ever been, an officer or employee of our company.

### **Amended and Restated Code of Business Conduct and Ethics**

In December 2024, our board of directors adopted an amended and restated written code of business conduct and ethics (originally adopted in April 2024 prior to our initial public offering) that applies to our employees, officers and directors. A current copy of the current code is posted on the Corporate Governance section of our website, which will be located at <https://ir.nanonuclearenergy.com/corporate-governance/governance-overview>. The amendments to the code undertaken in December 2024 were technical, administrative or non-substantive.

We intend to disclose future amendments to certain provisions of our code of business conduct and ethics, or waivers of such provisions applicable to any principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and our directors, on our website identified above or in filings with the SEC.

### **Amended and Restated Insider Trading Policy**

In December 2024, our board of directors adopted an Amended and Restated Insider Trading Policy, which updated the policy adopted in April 2024. The policy was adopted in order that we can take an active role in the prevention of insider trading violations by our officers, directors, employees, consultants, attorneys, advisors and other related individuals. The Amended and Restated Insider Trading Policy is filed as an exhibit to this Report.

## Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors, executive officers and ten percent stockholders to file initial reports of ownership and reports of changes in ownership of our common stock with the Commission. Directors, executive officers and ten percent stockholders are also required to furnish us with copies of all Section 16(a) forms that they file. Based solely on our review of such forms furnished to us and written representations from certain reporting persons, we believe that during the year ended September 30, 2024, all reports applicable to our executive officers, directors and greater than 10% beneficial owners were filed in a timely manner in accordance with Section 16(a) of the Exchange Act.

## ITEM 11. Executive Compensation

This section discusses the material components of the executive compensation program for our named executive officers for the years ended September 30, 2024 and 2023. Individuals we refer to as our “named executive officers” include our President, Chief Executive Officer and any other highly compensated executive officers whose salary and bonus for services rendered in all capacities equaled or exceeded \$100,000 during the fiscal years ended September 30, 2024 and 2023.

### Summary Compensation Table

The following table presents the compensation awarded to or earned by or paid to our named executive officers during the fiscal years ended September 30, 2024 and 2023.

| Name and Principal Position   | Year | Salary (\$) | Bonus (\$) | Option Awards (\$) | Non-Equity Incentive Plan Compensation (\$) | Nonqualified Deferred Compensation Earnings (\$) | All Other Compensation (\$) | Total (\$) |
|---|------|-------------|------------|--------------------|---|--|-----------------------------|------------|
| <b>Jay Jiang Yu</b><br><i>President, Secretary, Treasurer, and Chairman of the Board of Directors</i> | 2024 | -           | -          | -                  | -   | -  | \$ 390,000                  | \$ 390,000 |
|   | 2023 | -           | -          | \$ 317,652         | -   | -  | \$ 225,000                  | \$ 542,652 |
| <b>James Walker</b><br><i>Chief Executive Officer and Director</i>                                    | 2024 | -           | -          | -                  | -   | -  | \$ 185,000                  | \$ 185,000 |
|   | 2023 | -           | -          | \$ 317,652         | -   | -  | \$ 90,000                   | \$ 407,652 |
| <b>Jaisun Garcha</b><br><i>Chief Financial Officer</i>  | 2024 | -           | -          | -                  | -   | -  | \$ 170,000                  | \$ 170,000 |
|   | 2023 | -           | -          | \$ 77,786          | -   | -  | \$ 90,000                   | \$ 167,786 |

### Narrative to Summary Compensation Table

#### *Employment Agreement with Jay Yu*

On October 17, 2024, we entered into an employment agreement with Jiang Jay Yu, pursuant to which Mr. Yu will continue to serve as our President, reporting to our board of directors. The Compensation Committee of our board (with the members of such committee also comprising a majority of the entire board) independently reviewed and approved the employment agreement.

The employment agreement has an effective date of October 1, 2024, and has a three-year term, after which the employment agreement will automatically renew for additional one-year period unless either party provides written notice of its intention not to extend the employment agreement at least 90 days prior to a renewal date. Mr. Yu will provide no less than 40 hours per week to the business and affairs of our company.

The employment agreement entitles Mr. Yu to a base salary of \$420,000, eligibility for an annual bonus, eligibility for equity-based compensation awards and fringe benefits, perquisites, and employee benefits consistent with our practices. The employment agreement also entitles Mr. Yu to be indemnified and advanced legal fees to the maximum extent permitted under our bylaws and other governing documents.

Under the employment agreement, if we terminate Mr. Yu without “Cause” or Mr. Yu terminates employment with the Company for “Good Reason” (each as defined in the employment agreement), subject to the execution and non-revocation of a release of claims, Mr. Yu is entitled to receive the following: (i) 100% of any earned, pro-rated bonus, (ii) continued base salary for one year following termination, (iii) subsidized COBRA coverage for up to 18 months, and (iv) the treatment of Mr. Yu’s outstanding equity awards to be determined in accordance with the applicable equity plan and award agreement.

The employment agreement includes standard restrictive covenants in favor of our company, including confidentiality and one-year post-termination customer and employee non-solicitation and non-competition restrictions.

#### ***Consulting Agreements with Our Executive Officers***

We have entered into a consulting agreement with each of our executive officers under similar terms except for Jay Jiang Yu, our President, Secretary, Treasurer, and Chairman of the Board, with whom we have an employment agreement. We previously entered into a consulting agreement with I Financial Ventures Group LLC where Jay Jiang Yu is the sole member and manager and provided relevant services to us, which was terminated on October 17, 2024. In general, except for Jay Jiang Yu, our other executive officers are not employees of our company, instead, they serve as independent contractors and can be terminated by either party at any time. They may pursue any other activities and engagements during their terms of agreements with us.

Pursuant to those consulting agreements, our executive officers are entitled to a retention fee for services so rendered, and at the sole discretion of our company, they are also eligible to receive additional compensation awards and participate in our employee benefit programs. Those agreements also contain customary restrictive covenants relating to confidentiality, non-competition, non-solicitation, and non-disparagement, as well as indemnification.

The term of those consulting agreements is 36 months commencing from their respective effective date of those agreements, subject to early termination.

#### ***2023 Stock Option Agreements***

We have entered into nonqualified stock option agreements (or the 2023 Stock Option Agreements) pursuant to the 2023 Stock Option Plan #1 (as defined below) and the 2023 Stock Option Plan #2 (as defined below) with our executive officers and directors under similar terms. Under the 2023 Stock Option Agreements, each applicable executive officer and officer was granted an option to acquire certain common stock under those two option plans at certain exercise price.



Their options shall vest immediately on the date of grant, subject to their continued service with our company or its subsidiaries on each applicable vesting date. The following table provides information regarding each stock options held by the named executive officers as of the date of this Report.

|  | <b>Grant Date</b> | <b>Vesting Start date</b> | <b>Number of securities underlying unexercised options vested (#)</b> | <b>Number of securities underlying unexercised options unvested (#)</b> | <b>Options exercise price (\$)</b> | <b>Option Expiration date</b> |
|--|-------------------|---------------------------|---|---|------------------------------------|-------------------------------|
| Jay Jiang Yu<br><i>President, Secretary, Treasurer, and Chairman of the Board of Directors</i> | February 10, 2023 | February 10, 2023         | 500,000   | -   | \$ 1.50                            | February 10, 2026             |
|  | June 7, 2023      | June 7, 2023              | 200,000   | -   | \$ 3.00                            | June 7, 2026                  |
| James Walker<br><i>Chief Executive Officer and Director</i>                                    | February 10, 2023 | February 10, 2023         | 500,000   | -   | \$ 1.50                            | February 10, 2026             |
|  | June 7, 2023      | June 7, 2023              | 200,000   | -   | \$ 3.00                            | June 7, 2026                  |
| Jaisun Garcha<br><i>Chief Financial Officer</i>  | February 10, 2023 | February 10, 2023         | 150,000   | -   | \$ 1.50                            | February 10, 2026             |
|  | June 7, 2023      | June 7, 2023              | 40,000  | -   | \$ 3.00                            | June 7, 2026                  |

### **2023 Stock Option Plans**

On February 10, 2023, and on June 7, 2023, our board adopted two distinct stock option plans for our company (which we refer to individually, the 2023 Stock Option Plan #1 and the 2023 Stock Option Plan #2; collectively, the 2023 Stock Option Plans). There are currently no shares available for issuance under the 2023 Stock Option Plan #1. There are currently 860,349 shares available for issuance under the 2023 Stock Option Plan #2, and the maximum number of shares available increases quarterly tied to the number of issued and outstanding common shares, beginning on June 30, 2023. The plans are otherwise substantially similar in their substance.

The principal purposes of the 2023 Plans are to: (a) improve individual performance by providing long-term incentives and rewards to certain of our employees, directors, and consultants; (b) assist our company in attracting, retaining, and motivating certain employees, directors, and consultants with experience and ability; and (c) align the interests of such persons with those of our stockholders.

The following description of the principal terms of the 2023 Stock Option Plan #1 and the 2023 Stock Option Plan #2 is a summary and is qualified in its entirety by their full text and all amendments thereto.

#### Administration

The 2023 Stock Option Plans may be administered by our board or a committee appointed by, and consisting of two or more members of, the Board (or the Plan Administrator). At any time when no committee has been appointed to administer each of the 2023 Stock Option Plans, the Board will be the Plan Administrator. The Plan Administrator, in its exclusive discretion, selects the individuals to whom awards may be granted, the types of awards granted, the time or times at which such awards are granted, and the terms and conditions of such awards. The Plan Administrator also has exclusive authority to interpret each of the 2023 Stock Option Plans and the terms of any instrument evidencing any awards and may adopt and change rules and regulations of general application for their administration. The Plan Administrator may delegate administrative duties to such of our company's officers as it so determines. Unless sooner terminated, each of the 2023 Stock Option Plans shall terminate ten years after the earlier of the plan's adoption by the Board and approval by our company's stockholders.

#### Share Reserve

The 2023 Stock Option Plan #1 provides for the grant of options to purchase up to 3,247,030 shares of the common stock of the Corporation. The maximum aggregate number of shares of common stock that may be optioned and sold under the 2023 Stock Option Plan #1 will be subject to an increase on the first day of each fiscal quarter equal to 15% increase in the total outstanding shares of our common stock in the preceding quarter. As of the date of this Report, there are no shares available for issuance under the 2023 Stock Option Plan #1.

The 2023 Stock Option Plan #2 provides for the grant of options to purchase up to 1,727,730 shares of the common stock of the Corporation. The maximum aggregate number of shares of common stock that may be optioned and sold under the 2023 Stock Option Plan #2 will be increased each quarter, with the first quarterly increase on June 20, 2023, and every three months thereafter. As of the date of this Report, there are 860,349 shares available for issuance under the 2023 Stock Option Plan #2.

The maximum number of shares available under each of the 2023 Stock Option Plans is equal to the lesser of: (1) the number of shares equal to 15% of the outstanding shares of common stock on the applicable adjustment date (or the Adjustment Date), less (a) the number of shares of common stock that may be optioned and sold under the plan prior to the Adjustment Date, and (b) the number of shares of common stock that may be optioned and sold under any other stock option plan of our company in effect as of the Adjustment Date; or (2) such lesser number of shares of common stock as may be determined by the board. Any shares of common stock that have been made subject to an award that cease to be subject to the award (other than by reason of exercise or settlement of the award to the extent it is exercised for or settled in shares) shall again be available for issuance in connection with future grants of awards under each of the 2023 Stock Option Plans.

#### Withholding

Our company may require participants to pay to our company the amount of any taxes that our company is required by applicable federal, state, local or foreign law to withhold with respect to the grant, vesting or exercise of awards granted under the 2023 Stock Option Plans.

#### Eligibility

An award may be granted to any officer, director or employee of our company (which we refer to as a Related Company, as defined in the 2023 Stock Option Plans), that the Plan Administrator from time to time selects. An award may also be granted to any consultant, agent, advisor or independent contractor who provides services to our company or any Related Company, so long as such Consultant Participant: (a) is a natural person; (b) renders bona fide services that are not in connection with the offer and sale of our company's securities in a capital-raising transaction; and (c) does not directly or indirectly promote or maintain a market for our company's securities.

#### Types of Option Awards

The 2023 Stock Option Plans provide for the grant of stock options, which may be incentive stock options (or ISOs) or nonqualified stock options (or NSOs), which entitle the holder to purchase a specified number of shares of common stock at a specified price (the exercise price), subject to the terms and conditions of the stock option grant. An option holder may pay the exercise price of an option in cash or by any other method of payment which the Stock Option Administrator shall approve. Each of the 2023 Stock Option Plans provides that an option has a term of 10 years from the grant date.

The exercise price of an ISO shall be at least 100% of the fair market value of the common stock on the grant date. If an ISO is granted to a recipient who owns more than 10% of the total combined voting power of all classes of the stock of our company or of its parent or subsidiary corporations (which we refer to as a Ten Percent Stockholder), the exercise price of the ISO shall not be less than 110% of the fair market value of the common stock on the grant date.

#### Taxation

The aggregate fair market value, determined at the time of grant, of common stock with respect to ISOs that are exercisable for the first time by an option holder during any calendar year may not exceed \$100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our company's total combined voting power or that of any of our company's affiliates unless the option exercise price is at least 110% of the fair market value of common stock on the date of grant.

## Changes to Capital Structure

In the event of certain changes in capitalization, including a stock split, stock dividend, or an extraordinary corporate transaction such as any reorganization, merger, consolidation, recapitalization, or reclassification, proportionate adjustments will be made in the number and kind of shares available for issuance under each of the 2023 Stock Option Plans, the number and kind of shares subject to each outstanding award, and/or the exercise price of each outstanding award.

## Transferability

Awards granted under the 2023 Stock Option Plans may not be assigned, pledged, or transferred in any manner, other than by will or by the applicable laws of descent and distribution, and may be exercised, during the lifetime of the participant, only by the participant. Notwithstanding the foregoing, the Plan Administrator may, in its discretion, permit award transfers after the participant's death. If the Plan Administrator makes an award transferable, such award will be subject to all the terms and conditions of the plan and those contained in the instrument evidencing the award.

## Amendment and Termination

Our board may amend, suspend or terminate each of the 2023 Stock Option Plans at any time. Any such termination will not affect outstanding awards. No amendment, alteration, suspension, or termination of the 2023 Stock Option Plans will materially impair the rights of any participant, unless mutually agreed otherwise between the participant and our company. Approval of the stockholders shall be required for any amendment, where required by applicable law, as well as (i) to increase the number of shares of common stock available for issuance under each of the 2023 Stock Option Plans and (ii) to change the persons or class of persons eligible to receive awards under each of the 2023 Stock Option Plans. Unless sooner terminated, the February 2023 Stock Option Plan shall terminate ten years after the earlier of the plan's adoption by the Board and approval by our company's stockholders.

## **Compensation of Directors**

### ***Independent Director Agreements with Our Independent Directors***

We have entered into independent director agreements with each of our independent directors under similar terms. In general, our independent directors are not employees of our company, instead, they serve as independent contractors and can be terminated by either party at any time. They may pursue any other activities and engagements during their terms of agreements with us.

Pursuant to those agreements, each of our independent directors is (i) entitled to a cash compensation of \$5,000 upon full execution of his agreements with us, and an additional \$10,000 at one year anniversary of such agreement, for services so rendered; and (ii) granted options to purchase 40,000 shares of our company's common stock at an exercise price of \$3.00 per share, exercisable within three years. Those agreements also contain customary restrictive covenants relating to confidentiality, non-competition, non-solicitation and non-disparagement, as well as indemnification.

The term of those agreements is twenty-four (24) months commencing from their respective effective date of those agreements, subject to renewal and early termination.

Our executive directors will not receive compensation in their capacity as directors. The following table shows the compensation paid to our on-executive directors during the year ended September 30, 2024.

| Name and Principal Position | Year | Salary (\$) | Bonus (\$) | Option Awards (\$) | Non-Equity Incentive Plan Compensation (\$) | Nonqualified Deferred Compensation Earnings (\$) | All Other Compensation <sup>(1)</sup> (\$) | Total (\$) |
|-----------------------------|------|-------------|------------|--------------------|---|--|--|------------|
| <b>Dr. Tsun Yee Law</b>     | 2024 | -           | -          | -                  | -   | -  | \$ 25,000                                  | \$ 25,000  |
| <i>Independent Director</i> | 2023 | -           | -          | \$ 8,553           | -   | -  | \$ 15,000                                  | \$ 23,553  |
| <b>Diane Hare</b>           | 2024 | -           | -          | -                  | -   | -  | \$ 35,000                                  | \$ 35,000  |
| <i>Independent Director</i> | 2023 | -           | -          | \$ 35,019          | -   | -  | \$ 5,000                                   | \$ 40,019  |
| <b>Dr. Kenny Yu</b>         | 2024 | -           | -          | -                  | -   | -  | \$ 35,000                                  | \$ 35,000  |
| <i>Independent Director</i> | 2023 | -           | -          | \$ 35,019          | -   | -  | \$ 5,000                                   | \$ 40,019  |

(1) Consists of consulting fees or directors fees paid and accrued pursuant to their respective consulting agreements with us.

The following table provides information regarding each stock options held by the named directors under the 2023 Stock Option Plans as of the date of this Report.

|   | Grant Date        | Vesting Start date | Number of securities underlying unexercised options vested (#) | Number of securities underlying unexercised options unvested (#) | Options exercise price (\$) | Option Expiration date |
|---|-------------------|--------------------|--|--|-----------------------------|------------------------|
| Dr. Tsun Yee Law<br><i>Independent Director</i> | February 10, 2023 | February 10, 2023  | 30,000   | -  | \$ 1.50                     | February 10, 2026      |
| Diane Hare<br><i>Independent Director</i>       | June 7, 2023      | June 7, 2023       | 40,000   | -  | \$ 3.00                     | June 7, 2026           |
| Dr. Kenny Yu<br><i>Independent Director</i>     | June 7, 2023      | June 7, 2023       | 40,000   | -  | \$ 3.00                     | June 7, 2026           |

#### Outstanding Equity Awards at Fiscal Year-End

There was no issuance of shares of common stock as equity awards to any of our executive officers and directors during the fiscal years ended September 30, 2024 and 2023.

**ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

The following table sets forth certain information concerning the ownership of our common stock as of December 27, 2024, with respect to: (i) each person, or group of affiliated persons, known to us to be the beneficial owner of more than 5% of our common stock; (ii) each of our directors; (iii) each of our named executive officers; and (iv) all of our current directors and executive officers as a group.

Applicable percentage ownership is based on 36,596,849 shares of common stock outstanding as of December 27, 2024. We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting or investment power with respect to such securities. In addition, pursuant to such rules, we deemed outstanding shares of common stock subject to options or warrants held by that person that are currently exercisable or exercisable within 60 days of the date of this Report. We did not deem such shares outstanding, however, for the purpose of computing the percentage ownership of any other person. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the beneficial owners named in the table below have sole voting and investment power with respect to all shares of our common stock that they beneficially own, subject to applicable community property laws.

| Name and Address of Beneficial Owner <sup>(1)</sup>                      | Shares of common stock<br>Beneficially Owned |                           |
|--|--|---------------------------|
|  | Number                                       | Percentage <sup>(2)</sup> |
| <b>5% or Greater Stockholders</b>  |  |                           |
| I Financial Ventures Group LLC. <sup>(3)</sup>                           | 10,700,000                                   | 28.70%                    |
| <b>Executive Officers, Directors and Director Nominees</b>               |  |                           |
| Jay Jiang Yu <sup>(3)</sup>  | 10,700,000                                   | 28.70%                    |
| James Walker <sup>(4)</sup>  | 1,000,000                                    | 2.68%                     |
| Jaisun Garcha <sup>(5)</sup>   | 440,000                                      | 1.20%                     |
| Dr. Tsun Yee Law <sup>(6)</sup>  | 130,000                                      | *                         |
| Diane Hare <sup>(7)</sup>  | 40,000                                       | *                         |
| Dr. Kenny Yu <sup>(8)</sup>  | 55,000                                       | *                         |
| <b>All directors and executive officers as a group (six individuals)</b> | <b>12,365,000</b>                            | <b>33.19%</b>             |

\* Less than 1%.

(1) Except as otherwise indicated, the business address of our directors and executive officers is 10 Times Square, 30<sup>th</sup> Floor, New York, NY 10018.

(2) Based on 36,596,849 shares of common stock outstanding as of December 27, 2024.

(3) Represents 10,000,000 shares of common stock held by I Financial Ventures Group LLC. (or the I Financial), a Limited Liability company incorporated under the laws of Delaware and includes 700,000 shares of common stock issuable upon the exercise of the vested options within 60 days of the date of this Report. Jay Jiang Yu, our President, Secretary, Treasurer, and Chairman of the Board of Directors, is the sole shareholder and director of I Financial, and exercises voting and dispositive power of the securities held by I Financial. The address of I Financial is c/o 10 Times Square, 30<sup>th</sup> Floor, New York, NY 10018.

- (4) Represents 300,000 shares of common stock held by James Walker, our Chief Executive Officer and director, and includes 700,000 shares of common stock issuable upon the exercise of the vested options within 60 days of the date of this Report.
- (5) Represents 250,000 shares of common stock held by Jaisun Garcha, our Chief Financial Officer and director, and includes 190,000 shares of common stock issuable upon the exercise of the vested options within 60 days of the date of this Report.
- (6) Represents 100,000 shares of common stock held by Dr. Tsun Yee Law, our independent director, and includes 30,000 shares of common stock issuable upon the exercise of the vested options within 60 days of the date of this Report.
- (7) Includes 40,000 shares of common stock issuable upon the exercise of the vested options by Diane Hare, our independent director, within 60 days of the date of this Report.
- (8) Represents 15,000 shares of common stock held by Dr. Kenny Yu, our independent director, and includes 40,000 shares of common stock issuable upon the exercise of the vested options within 60 days of the date of this Report.

#### **Changes in Control**

None.

#### **ITEM 13. Certain Relationships and Related Transactions, and Director Independence**

The following is a description of transactions since February 8, 2022 (inception) to which we were a party in which (i) the amount involved exceeded or will exceed the lesser of \$120,000 or one percent (1%) of our average total assets at year-end for the last two completed fiscal years and (ii) any of our directors, executive officers or holders of more than 5% of our capital stock, or any member of the immediate family of, or person sharing the household with, any of the foregoing persons, who had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other similar arrangements, which are described under "Executive Compensation."

##### *Amount Due to Related Parties*

As of September 30, 2024, we had amounts due to related parties totaling \$25,000, which was due to our Chief Executive Officer James Walker. The amounts due as of September 30, 2024 corresponded to unpaid amounts due to our Chief Executive Officer for services rendered during the year ended September 30, 2024.

As of September 30, 2023, we had amounts due to related parties totaling \$35,000, of which \$30,000 was due to our Chief Executive Officer James Walker, and \$5,000 was due to our President, Secretary, Treasurer, and Chairman of the Board Jay Jiang Yu. The amounts due as of September 30, 2023 corresponded to unpaid amounts due to officers and directors for services rendered during the year ended September 30, 2023.

For the year ended September 30, 2024, we incurred consulting fees of \$390,000 to our President, Secretary, Treasurer, and Chairman of the Board, Jay Jiang Yu, \$185,000 to our Chief Executive Officer James Walker, \$170,000 to our Chief Financial Officer Jaisun Garcha, and incurred total directors' fees of \$95,000 to three independent directors (including \$25,000 for Dr. Tsun Yee Law, \$35,000 for Diane Hare and \$35,000 for Dr. Kenny Yu), which was included in the accompanying consolidated statement of operation under general and administrative expenses. For the year ended September 30, 2023, we incurred consulting fees of \$225,000 to our President, Secretary, Treasurer, and Chairman of the Board, Jay Jiang Yu, \$90,000 to our Chief Executive Officer James Walker, \$90,000 to our Chief Financial Officer Jaisun Garcha, and incurred total directors' fees of \$25,000 to three independent directors (including \$15,000 for Dr. Tsun Yee Law, \$5,000 for Diane Hare and \$5,000 for Dr. Kenny Yu), which was included in the accompanying consolidated statement of operation under general and administrative expenses.

## *Relationship with LIS Technologies*

In August 2024, we invested \$2,000,000 as an equity investment into LIST as part of its \$11.88 million seed funding round. This additional capital into LIST is anticipated to help fuel the development of its proprietary, patented advanced laser enrichment technology.

LIST is a U.S. based, proprietary developer of a patented advanced laser technology, making use of infrared wavelengths to selectively excite the molecules of desired isotopes to separate them from other isotopes. LIST's Laser Isotope Separation Technology ("L.I.S.T") has a huge range of applications, including LIST being the only U.S.-origin (and patented) laser uranium enrichment company, and several major advantages over traditional methods such as gas diffusion, centrifuges, and prior art laser enrichment. The L.I.S.T proprietary laser-based process is more energy-efficient and has the potential to be deployed with highly competitive capital and operational costs due to high throughput, high duty cycle and reduced complexity compared to competing technologies.

L.I.S.T is optimized for LEU (Low Enriched Uranium) for existing civilian nuclear power plants, HALEU for the next generation of Small Modular Reactors (SMR) and microreactors like the ones we are developing, the production of stable isotopes for medical and scientific research, and applications in quantum computing manufacturing for semiconductor technologies. For laser enrichment of uranium, this method has sufficient selectivity that will enable the production of LEU in a single stage and HALEU in two stages.

Concurrently with our investment in LIST, we entered into an agreement with LIST to collaborate and assist in developing their technologies to secure a fuel supply for our future operations and the wider nuclear energy industry. The parties intend that LIST will provide us with enriched UF<sub>6</sub> at no cost to be fabricated and sold to customers, with LIST to receive compensation as part of a profit-sharing arrangement to be agreed to between the companies in the future. Through collaboration with LIST, we anticipate that we will build supportive facilities around LIST's enrichment facility, including such facilities as deconversion and fuel fabrication.

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

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

## **Facilities**

See "*Properties.*"

## **Share Issuances**

See "*Recent Sales of Unregistered Securities.*"

## **Employment Arrangements with Senior Executives**

See "*Executive Compensation.*"

## Company Policies on Related Party Transactions

A “Related Party Transaction” is a transaction, arrangement, or relationship in which we or any of our subsidiaries was, is or will be a participant, the amount of which involved exceeds \$100,000 in any one fiscal year, and in which any related person had, has or will have a direct or indirect material interest. A “Related Person” means:

- any person who is, or at any time during the applicable period was, one of our executive officers, one of our directors, or a nominee to become one of our directors;
- any person who is known by us to be the beneficial owner of more than 5.0% of any class of our voting securities;
- any immediate family member of any of the foregoing persons, which means any child, stepchild, parent, stepparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law of a director, executive officer or a beneficial owner of more than 5.0% of any class of our voting securities, and any person (other than a tenant or employee) sharing the household of such director, executive officer or beneficial owner of more than 5.0% of any class of our voting securities; and
- any firm, corporation, or other entity in which any of the foregoing persons is employed or is a general partner or principal or in a similar position or in which such person has a 5% or greater beneficial ownership interest in any class of our company’s voting securities.

Our Board intends to adopt a related party transactions policy. Pursuant to this policy, our Audit Committee will review all material facts of all Related Party Transactions and either approve or disapprove entry into the Related Party Transaction, subject to certain limited exceptions. In determining whether to approve or disapprove entry into a Related Party Transaction, our Audit Committee shall consider, among other factors, the following: (i) whether the Related Party Transaction is on terms no less favorable than terms generally available to an unaffiliated third-party under the same or similar circumstances and (ii) the extent of the Related Person’s interest in the transaction. Further, the policy will require that all Related Party Transactions required to be disclosed in our filings with the SEC be so disclosed in accordance with applicable laws, rules and regulations.

### ITEM 14. Principal Accounting Fees and Services

The following table sets forth the fees billed by our independent accountant, WithumSmith+Brown, PC (or Withum) for the fiscal years ended September 30, 2024 and 2023.

|                    | Year Ended September 30, |            |
|--------------------|--------------------------|------------|
|                    | 2024                     | 2023       |
| Audit fees         | \$ 235,200               | \$ 171,600 |
| Audit-related fees | \$ -                     | \$ -       |
| Tax fees           | \$ 12,792                | \$ 10,400  |
| All other fees     | \$ -                     | \$ -       |



**Audit Fees**

Audit fees consist of fees for professional services rendered for the audit of our year-end financial statements and services that are normally provided by Withum in connection with regulatory filings. The aggregate fees of Withum for professional services rendered for the audit of our annual financial statements, review of the financial information include in our filings with the SEC for the years ended September 30, 2024 and 2023 totaled \$235,200 and \$171,600, respectively.

**Audit-Related Fees**

Audit-related fees consist of fees billed for assurance and related services that are reasonably related to performance of the audit or review of our financial statements and are not reported under "Audit Fees." These services include attest services that are not required by statute or regulation and consultations concerning financial accounting and reporting standards. We did not pay any fees for consultations concerning financial accounting and reporting standards for the fiscal years ended September 30, 2024 and 2023.

**Tax Fees**

Tax fees include professional services rendered in connection with tax compliance and preparation of tax returns, as well as for tax consulting and planning services. We paid Withum \$12,792 and \$10,400 for tax related fees for the fiscal years ended September 30, 2024 and 2023.

**All Other Fees**

All other fees relate to professional services are not included in the categories above. We did not pay any other fees for the fiscal years ended September 30, 2024 and 2023.

**Procedures For Board of Directors Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditor**

Our audit committee was formed upon the consummation of our initial public offering. As a result, the audit committee did not pre-approve all of the foregoing services, although any services rendered prior to the formation of our audit committee were approved by our board of directors. Since the formation of our audit committee, and on a going-forward basis, the audit committee has and will pre-approve all auditing services and permitted non-audit services to be performed for us by our auditors, including the fees and terms thereof (subject to the de minimis exceptions for non-audit services described in the Exchange Act which are approved by the audit committee prior to the completion of the audit).

## PART IV

### ITEM 15. Exhibits and Financial Statements Schedules

(a) The following documents are filed as part of this Report:

(1) Financial Statements

|  | Page |
|--|------|
| <a href="#">Report of Independent Registered Public Accounting Firm (PCAOB ID 100)</a> | F-2  |
| <a href="#">Balance Sheets</a>   | F-3  |
| <a href="#">Statements of Operations</a>   | F-4  |
| <a href="#">Statements of Stockholders' Equity</a>                                     | F-5  |
| <a href="#">Statements of Cash Flows</a>   | F-6  |
| <a href="#">Notes to Financial Statements</a>  | F-7  |

(2) Financial Statement Schedules

All financial statement schedules are omitted because they are not applicable or the amounts are immaterial and not required, or the required information is presented in the financial statements and notes thereto beginning on page F-1 of this Report.

(3) Exhibits

We hereby file as part of this Report the exhibits listed in the attached Exhibit Index. Exhibits that are incorporated herein by reference can be inspected on the SEC website at [www.sec.gov](http://www.sec.gov).

### ITEM 16. Form 10-K Summary.

Not applicable.

NANO NUCLEAR ENERGY INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

|   | <b>Page</b> |
|---|-------------|
| <a href="#">Reports of Independent Registered Public Accounting Firm (PCAOB ID 100)</a>   | F-2         |
| <a href="#">Consolidated Balance Sheets as of September 30, 2024 and 2023</a>   | F-3         |
| <a href="#">Consolidated Statements of Operations for the Fiscal Years Ended September 30, 2024 and 2023</a>                                    | F-4         |
| <a href="#">Consolidated Statements of Stockholders' Equity for the Fiscal Years Ended September 30, 2024 and 2023</a>                          | F-5         |
| <a href="#">Consolidated Statements of Cash Flows Statements of Stockholders' Equity for the Fiscal Years Ended September 30, 2024 and 2023</a> | F-6         |
| <a href="#">Notes to Consolidated Financial Statements</a>  | F-7         |

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of  
Nano Nuclear Energy, Inc. and Subsidiaries:

### Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Nano Nuclear Energy, Inc. and Subsidiaries (the “Company”) as of September 30, 2024 and 2023, and the related consolidated statements of operations, stockholders’ equity and cash flows for each of the two years in the period ended September 30, 2024, and the related notes to the consolidated financial statements (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of September 30, 2024 and 2023, and the results of its operations and its cash flows for each of the two years in the period ended September 30, 2024, in conformity with accounting principles generally accepted in the United States of America.

### Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, audits of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ WithumSmith+Brown, PC

We have served as the Company’s auditor since 2023.

New York, New York  
December 30, 2024  
PCAOB ID Number 100

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**

|  | <b>September 30, 2024</b> | <b>September 30, 2023</b> |
|--|---------------------------|---------------------------|
| <b>ASSETS</b>  |                           |                           |
| Current assets:  |                           |                           |
| Cash and cash equivalents  | \$ 28,507,257             | \$ 6,952,795              |
| Prepaid expenses   | 833,947                   | 205,857                   |
| Total current assets   | 29,341,204                | 7,158,652                 |
| Deferred offering costs  | -                         | 75,000                    |
| Deposits   | 235,235                   | -                         |
| Property, plant and equipment, net   | 1,689,607                 | -                         |
| Right of use asset   | 1,830,124                 | -                         |
| Long-term investments, related party   | 2,000,000                 | -                         |
| Total assets   | \$ 35,096,170             | \$ 7,233,652              |
| <b>LIABILITIES, MEZZANINE, AND STOCKHOLDERS' EQUITY</b>  |                           |                           |
| Current liabilities:   |                           |                           |
| Accounts payable and accrued liabilities   | \$ 761,479                | \$ 190,005                |
| Due to related parties   | 25,000                    | 35,000                    |
| Lease liability, current   | 281,352                   | -                         |
| Contingent consideration   | 770,500                   | -                         |
| Total current liabilities  | 1,838,331                 | 225,005                   |
| Lease liability, non-current   | 1,650,383                 | -                         |
| Total liabilities  | 3,488,714                 | 225,005                   |
| Mezzanine Equity   |                           |                           |
| Common stock subject to possible redemption; nil and 2,000,000 shares as of September 30, 2024 and September 30, 2023, respectively  | -                         | 5,000,000                 |
| Stockholders' Equity   |                           |                           |
| Preferred stock, \$0.0001 par value; 25,000,000 authorized as of September 30, 2024 and 100,000,000 authorized as of September 30, 2023; none issued and outstanding as of September 30, 2024 and September 30, 2023   | -                         | -                         |
| Common stock, \$0.0001 par value; 275,000,000 authorized as of September 30, 2024 and 100,000,000 authorized as of September 30, 2023; 30,715,663 and 23,184,869 shares issued and outstanding as of September 30, 2024 and September 30, 2023, respectively, excluding 2,000,000 shares as of September 30, 2023 subject to possible redemption | 3,072                     | 2,319                     |
| Additional paid-in capital   | 49,038,165                | 9,288,553                 |
| Accumulated deficit  | (17,433,781)              | (7,282,225)               |
| Total stockholders' equity   | 31,607,456                | 2,008,647                 |
| Total liabilities, mezzanine equity, and stockholders' equity  | \$ 35,096,170             | \$ 7,233,652              |

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

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

|   | <b>For the Year Ended<br/>September 30, 2024</b> | <b>For the Year Ended<br/>September 30, 2023</b> |
|---|--|--|
| <b>Operating expenses</b>                                   |  |  |
| General and administrative                                  | \$ 6,850,993                                     | \$ 4,749,395                                     |
| Research and development                                    | 3,725,565  | 1,534,000  |
| Change in Fair Value of contingent consideration            | (66,000)   | -  |
| <b>Loss from operations</b>                                 | <b>(10,510,558)</b>                              | <b>(6,283,395)</b>                               |
| Other income  | 359,002  | 32,994   |
| <b>Net loss</b>   | <b>\$ (10,151,556)</b>                           | <b>\$ (6,250,401)</b>                            |
| <b>Net loss per share of common stock:</b>                  |  |  |
| Basic   | \$ (0.39)  | \$ (0.28)  |
| Diluted   | \$ (0.39)  | \$ (0.28)  |
| <b>Weighted-average shares of common stock outstanding:</b> |  |  |
| Basic   | 26,222,442                                       | 22,389,627                                       |
| Diluted   | 26,222,442                                       | 22,389,627                                       |

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

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

**For the Year Ended September 30, 2024**

|  | <u>Mezzanine Equity</u> |               | <u>Permanent Equity</u> |                 |                                   |                            |                      |
|--|-------------------------|---------------|-------------------------|-----------------|-----------------------------------|----------------------------|----------------------|
|  | <u>Shares</u>           | <u>Amount</u> | <u>Shares</u>           | <u>Amount</u>   | <u>Additional paid-in capital</u> | <u>Accumulated deficit</u> | <u>Total</u>         |
| Balance as of September 30, 2023       | 2,000,000               | \$ 5,000,000  | 23,184,869              | \$ 2,319        | \$ 9,288,553                      | \$ (7,282,225)             | \$ 2,008,647         |
| Mezzanine equity conversion            | (2,000,000)             | (5,000,000)   | 2,000,000               | 200             | 4,999,800                         | -                          | 5,000,000            |
| Common stock issuances                 | -                       | -             | 4,804,019               | 481             | 34,953,456                        | -                          | 34,953,937           |
| Offering costs                         | -                       | -             | -                       | -               | (3,629,829)                       | -                          | (3,629,829)          |
| R&D acquisition common stock issuances | -                       | -             | 50,000                  | 5               | 786,495                           | -                          | 786,500              |
| Exercise of warrants                   | -                       | -             | 63,775                  | 6               | 1,275,494                         | -                          | 1,275,500            |
| Exercise of stock options              | -                       | -             | 593,000                 | 59              | 1,043,941                         | -                          | 1,044,000            |
| Equity-based compensation              | -                       | -             | 20,000                  | 2               | 320,255                           | -                          | 320,257              |
| Net loss                               | -                       | -             | -                       | -               | -                                 | (10,151,556)               | (10,151,556)         |
| Balance as of September 30, 2024       | <u>-</u>                | <u>\$ -</u>   | <u>30,715,663</u>       | <u>\$ 3,072</u> | <u>\$49,038,165</u>               | <u>\$ (17,433,781)</u>     | <u>\$ 31,607,456</u> |

**For the Year Ended September 30, 2023**

|                                  | <u>Mezzanine Equity</u> |                     | <u>Permanent Equity</u> |                 |                                   |                            |                     |
|----------------------------------|-------------------------|---------------------|-------------------------|-----------------|-----------------------------------|----------------------------|---------------------|
|                                  | <u>Shares</u>           | <u>Amount</u>       | <u>Shares</u>           | <u>Amount</u>   | <u>Additional paid-in capital</u> | <u>Accumulated deficit</u> | <u>Total</u>        |
| Balance as of September 30, 2022 | -                       | \$ -                | 20,501,500              | \$ 2,050        | \$ 3,139,450                      | \$ (1,031,824)             | \$ 2,109,676        |
| Common stock issuances           | 2,000,000               | 5,000,000           | 2,598,369               | 260             | 3,765,109                         | -                          | 3,765,369           |
| Equity-based compensation        | -                       | -                   | 85,000                  | 9               | 2,383,994                         | -                          | 2,384,003           |
| Net loss                         | -                       | -                   | -                       | -               | -                                 | (6,250,401)                | (6,250,401)         |
| Balance as of September 30, 2023 | <u>2,000,000</u>        | <u>\$ 5,000,000</u> | <u>23,184,869</u>       | <u>\$ 2,319</u> | <u>\$9,288,553</u>                | <u>\$ (7,282,225)</u>      | <u>\$ 2,008,647</u> |

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

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

|  | <b>For the Year Ended<br/>September 30, 2024</b> | <b>For the Year Ended<br/>September 30, 2023</b> |
|--|--|--|
| <b>OPERATING ACTIVITIES</b>  |  |  |
| <b>Net loss</b>  | \$ (10,151,556)                                  | \$ (6,250,401)                                   |
| Adjustments to reconcile net loss to net cash used in operating activities:  |  |  |
| R&D acquisition paid in equity   | 786,500  | -  |
| Equity-based compensation  | 320,257  | 2,384,003  |
| Amortization of right of use asset   | 96,532   | -  |
| Depreciation   | 10,393   | -  |
| Change in assets and liabilities:  |  |  |
| Prepaid expenses   | (628,090)  | (88,409)   |
| Deposits   | (235,235)  | -  |
| Accounts payable and accrued liabilities                                     | 571,474  | 87,234   |
| Due to related parties   | (10,000)   | -  |
| Lease liability  | 5,079  | -  |
| Contingent liability   | 770,500  | -  |
| <b>Net cash used in operating activities</b>                                 | <u>(8,464,146)</u>                               | <u>(3,867,573)</u>                               |
| <b>INVESTING ACTIVITIES</b>  |  |  |
| Increase in long-term investments  | (2,000,000)                                      | -  |
| Additions to property, plant and equipment                                   | (1,700,000)                                      | -  |
| <b>Net cash provided by investing activities</b>                             | <u>(3,700,000)</u>                               | <u>-</u>   |
| <b>FINANCING ACTIVITIES</b>  |  |  |
| Proceeds from common stock issuances   | 34,953,937                                       | 8,765,369  |
| Offering costs   | (3,554,829)                                      | (75,000)   |
| Proceeds from exercise of warrants   | 1,275,500  | -  |
| Proceeds from exercise of stock options                                      | 1,044,000  | -  |
| <b>Net cash provided by financing activities</b>                             | <u>33,718,608</u>                                | <u>8,690,369</u>                                 |
| <b>Net increase in cash</b>  | 21,554,462                                       | 4,822,796  |
| Cash and cash equivalents, beginning of year                                 | 6,952,795  | 2,129,999  |
| Cash and cash equivalents, end of year                                       | <u>\$ 28,507,257</u>                             | <u>\$ 6,952,795</u>                              |
| <b>Non-Cash Supplemental Disclosures</b>                                     |  |  |
| Right of use assets acquired in exchange for new operating lease liabilities | \$ 1,926,178                                     | \$ -   |

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



**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**As of September 30, 2024**

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

These consolidated financial statements include the accounts of the Company and its wholly-owned legal subsidiaries American Uranium Inc., HALEU Energy Fuel Inc., Advanced Fuel Transportation Inc., and Nano Nuclear Space 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 consolidated financial statements have been prepared on a going concern basis, which assumes the realization of assets and settlement of liabilities in the normal course of business. At September 30, 2024, the Company had working capital of \$27,502,873 and accumulated deficit of \$17,433,781. For the year ended September 30, 2024, the Company had net loss of \$10,151,556, and negative cash flows from operations of \$8,464,146. 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 ability of the Company to continue as a going concern is dependent on the Company’s ability to secure financing from capital markets or other sources, including investors, 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 consolidated 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 September 30, 2024, the Company completed an underwritten follow-on public offering generating gross proceeds of approximately \$41.4 million and a private placement generating gross proceeds of approximately \$60 million. See Note 10 for further information.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**As of September 30, 2024**

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

***Principles of Consolidation***

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The consolidated financial statements include the accounts of NANO and its wholly owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

***Cash and Cash Equivalents***

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

***Use of Estimates***

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

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**As of September 30, 2024**

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

***Concentration of Credit Risk***

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents. The Company maintains its cash balances at a financial institution and such amounts exceeded federally insured limits at September 30, 2024 and 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.

***Property, plant and equipment***

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

***Depreciation***

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

|           |                 |
|-----------|-----------------|
| Land      | Not depreciated |
| Buildings | 20 years        |

***Leases***

The Company recognizes right-of-use (ROU) assets and lease liabilities for leases with terms greater than 12 months. Leases are classified as either finance or operating leases. This classification dictates whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. As of September 30, 2024, the Company has 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 September 30, 2024 and September 30, 2023.

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

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

As of September 30, 2024 and 2023, the Company had investments in equity of \$2.0 million and \$0, respectively. The equity investments were accounted for in accordance with ASC 321-10, and the Company accounted for the equity investments at cost less impairment because there were no readily determinable fair values for these investments as of September 30, 2024. No impairment was recorded during the years ended September 30, 2024 and 2023. The investments were recognized as other assets on the Company's consolidated balance sheets.

***Mezzanine Equity***

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

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**As of September 30, 2024**

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

***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 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 consolidated statements of operations. Advertising costs expensed were approximately \$902,000 and \$483,500, respectively, for the years ended September 30, 2024 and 2023.

***Legal Contingencies***

The Company is presently involved in some legal proceedings that are at an early stage and therefore the Company cannot reasonably estimate the amount of any potential financial loss or cost that could result from these legal proceedings. The Company records liabilities for losses from legal proceedings when it determines that it is probable that the outcome in a legal proceeding will be unfavorable, and the amount of loss can be reasonably estimated.

***Income Taxes***

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets, including tax loss and credit carry forwards, and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is recorded when it is "more likely-than-not" that deferred tax assets will not be realized. On a regular basis, the Company evaluates the recoverability of deferred tax assets and the need for a valuation allowance. Such evaluations involve the application of significant judgment. The Company considers multiple factors in its evaluation of the need for a valuation allowance.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
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**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

***Income Taxes (Continued)***

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 consolidated financial statements. The Company’s practice is to recognize interest and penalties, if any, related to uncertain tax positions in income tax expense in the consolidated statements of operations. All of the Company’s historical tax returns remain subject to examination by taxing jurisdictions. At September 30, 2024 and 2023, the Company does not believe it has any uncertain tax positions that would require either recognition or disclosure in the accompanying consolidated financial statements.

***Net Loss per Share***

Basic net income (loss) per share is computed by dividing net income (loss) attributable to the Company by the weighted average number of shares of Common Stock outstanding during the period. Diluted net income (loss) per share is computed based on the weighted average number of shares of Common Stock outstanding plus the effect of dilutive potential shares of Common Stock outstanding during the period. During the periods when there is a net loss, potentially dilutive shares of Common Stock are excluded from the calculation of diluted net loss per share as their effect is anti-dilutive. During the years ended September 30, 2024 and 2023, there were no dilutive shares issued or outstanding.

***Operating Segments***

For the years ended September 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 consolidated financial statements.

**3. OTHER INCOME**

During the year ended September 30, 2024, the Company earned interest income of \$352,002 on its cash and cash equivalents held at a financial institution and earned \$7,000 from a lease agreement (Note 8). During the year ended September 30, 2023, the Company earned interest income of \$32,994 on its cash and cash equivalents held at a financial institution.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
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**4. RELATED PARTIES**

At September 30, 2024 and 2023, the Company had amounts due to related parties of \$25,000 and \$35,000, respectively. These amounts corresponded to unpaid amounts due to officers and directors for services rendered during the years ended September 30, 2024 and 2023. During the year ended September 30, 2024, the Company incurred consulting fees of \$390,000 to its President and Chairman, \$185,000 to its Chief Executive Officer, \$170,000 to its Chief Financial Officer, and incurred total directors' fees of \$95,000 to three independent directors, which was included in the consolidated statement of operations under general and administrative expenses. During the year ended September 30, 2023, the Company incurred consulting fees of \$225,000 to its President and Chairman, \$90,000 to its Chief Executive Officer, \$90,000 to its Chief Financial Officer, and incurred total directors' fees of \$25,000 to three independent directors, which was included in the consolidated statement of operation 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***

*Angel Round*

The Company's second round of private financing (the "Angel Round") began in April 2022 and ended in February 2023. 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. During the year ended September 30, 2024, the Company sold 822,144 shares of Common Stock at a price of \$3.00 per share for gross proceeds of \$2,466,437 corresponding to the Series B Round.

*Initial Public Offering (IPO)*

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

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

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
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**5. EQUITY (Continued)**

*July 2024 Firm Commitment Public Offering*

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

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

Subsequent to September 30, 2024, the Company consummated an additional firm commitment underwritten follow-on offering and a private placement offering. See Note 9 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.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
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**5. EQUITY (Continued)**

*Equity-Based Compensation*

*Issuance of Common Stock for Consulting fees*

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

*Stock Based Compensation*

On February 10, 2023, and on June 7, 2023, the Company adopted two distinct stock option plans which are referred to individually, as the 2023 Stock Option Plan #1 and the 2023 Stock Option Plan #2; (collectively, the "2023 Stock Option Plans"). There are no shares available for 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 860,349 shares of Common Stock available for issuance under the 2023 Stock Option Plan #2, and the maximum number of shares available under the plan may increase on a quarterly basis if the total number of stock options issued under the 2023 Stock Option Plans is less than 15% of the number of issued shares of Common Stock. The plans are otherwise substantially similar in their substance.

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

During the year ended September 30, 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 Plans that are exercisable at \$3.00 per common share with expiry on June 7, 2026, and issued 247,000 fully vested stock options under 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%).

During the years ended September 30, 2024 and 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 year ended September 30, 2024 was \$1.22 per share. There was no remaining stock compensation expense to be recognized at September 30, 2024 as all options vested immediately upon grant.

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.



**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
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**5. EQUITY (Continued)**

*Equity-Based Compensation (Continued)*

*Stock Based Compensation (Continued)*

**Option Activity**

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

|                                    | <b>Options outstanding</b>  |  |   |   |
|------------------------------------|-----------------------------|--|---|---|
|                                    | <b>Number of<br/>shares</b> | <b>Weighted average<br/>exercise price<br/>per share</b> | <b>Weighted average<br/>contractual term<br/>(in years)</b> | <b>Aggregate<br/>intrinsic value<br/>(in thousands)</b> |
| Outstanding – September 30, 2022   | —                           | \$ —   | —   | \$ —  |
| Options granted                    | 2,050,000                   | 1.50   | 3.00  | 1,025   |
| Options granted                    | 1,650,000                   | 3.00   | 3.00  | 825   |
| Options granted                    | 307,000                     | 3.00   | 3.00  | 154   |
| Outstanding – September 30, 2023   | 4,007,000                   | \$ 2.23  | 2.54  | \$ 2,004  |
| Options granted                    | 125,000                     | 3.00   | 2.71  | 152   |
| Options exercised                  | (593,000)                   | 1.76   | —   | (297)   |
| Outstanding – September 30, 2024   | 3,539,000                   | \$ 2.34  | 1.59  | \$ 1,859  |
| Vested during the year             | 125,000                     | \$ 3.00  | 3.00  | \$ 152  |
| Vested at end of year              | -                           | \$ -   | -   | \$ -  |
| Exercisable at the end of the year | 3,539,000                   | \$ 2.34  | 1.59  | \$ 1,859  |

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
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**6. PROPERTY, PLANT AND EQUIPMENT, RIGHT OF USE ASSET & LEASE LIABILITY**

|  | <b>September 30, 2024</b> | <b>September 30, 2023</b> |
|--|---------------------------|---------------------------|
|  | <b>Land and buildings</b> | <b>Land and buildings</b> |
| <b>Cost</b>                              |                           |                           |
| Beginning of year                        | \$ -                      | \$ -                      |
| Additions – land                         | 115,000                   | -                         |
| Additions – building                     | 1,585,000                 | -                         |
| End of year                              | <u>1,700,000</u>          | <u>-</u>                  |
| <b>Accumulated depreciation</b>          |                           |                           |
| Beginning of year                        | -                         | -                         |
| Depreciation of building                 | (10,393)                  | -                         |
| End of year                              | <u>(10,393)</u>           | <u>-</u>                  |
| Total Property, plant and equipment, net | <u>\$ 1,689,607</u>       | <u>\$ -</u>               |
| <b>Right-of-use assets</b>               |                           |                           |
| Beginning of year                        | -                         | -                         |
| Additions                                | 1,926,656                 | -                         |
| Amortization                             | (96,532)                  | -                         |
| End of year                              | <u>\$ 1,830,124</u>       | <u>\$ -</u>               |

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

As of September 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 September 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 years ended September 30, 2024 and 2023, was as follows:

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

|                                      | <b>September 30,</b> | <b>September 30,</b> |
|--------------------------------------|----------------------|----------------------|
|                                      | <b>2024</b>          | <b>2023</b>          |
| <b>Operating leases:</b>             |                      |                      |
| Operating right-of-use asset         | \$ 1,830,124         | \$ —                 |
| Operating lease liability, current   | 281,352              | —                    |
| Operating lease liability, long-term | 1,650,383            | —                    |

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
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**6. PROPERTY, PLANT AND EQUIPMENT, RIGHT OF USE ASSET & LEASE LIABILITY (Continued)**

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

| <b>Lease cost:</b>   | <b>Year Ended September 30,</b> |             |
|----------------------|---------------------------------|-------------|
|                      | <b>2024</b>                     | <b>2023</b> |
| Operating lease cost | \$ 236,030                      | \$ —        |

Other information related to leases is presented below:

| <b>Cash paid for amounts included in the measurement of lease liabilities:</b> | <b>Year Ended September 30,</b> |             |
|--|---------------------------------|-------------|
|  | <b>2024</b>                     | <b>2023</b> |
| Operating cash outflows from operating leases                                  | \$ 134,420                      | \$ —        |

|  | <b>September 30, 2024</b> |
|--|---------------------------|
| Weighted-average discount rate – operating lease                   | 13.5%                     |
| Weighted-average remaining lease term – operating lease (in years) | 7.0                       |

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

| <b>For the Years Ended September 30,</b>                |              |
|---|--------------|
| 2025  | \$ 339,411   |
| 2026  | 418,508      |
| 2027  | 428,971      |
| 2028  | 439,695      |
| 2029  | 450,688      |
| Thereafter  | 855,567      |
| Total future minimum lease payments, undiscounted       | 2,932,840    |
| Less: Imputed interest for leases in excess of one year | (1,001,105)  |
| Present value of future minimum lease payments          | 1,931,735    |
| Less: Current portion of lease liabilities              | (281,352)    |
| Total lease liabilities less current portion            | \$ 1,650,383 |

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
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**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.

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:

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

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
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**7. ACQUISITION OF ALIP TECHNOLOGY (Continued)**

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 September 30, 2024, the contingent cash and common shares obligation was revalued to its fair value of \$770,500 based on the closing price of NANO's stock on September 30, 2024, which resulted in a revaluation recovery of \$66,000.

**8. LONG-TERM INVESTMENTS, RELATED PARTY**

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

Concurrently with our investment in LIST, the Company entered into an agreement with LIST to collaborate and assist in developing LIST's technologies to secure a fuel supply for our future operations and the wider nuclear energy industry. The parties intend that LIST will provide the Company with enriched UF<sub>6</sub> at no cost to be fabricated and sold to customers, with LIST to receive compensation as part of a profit-sharing arrangement to be agreed to between the companies in the future. Through collaboration with LIST, the Company anticipates building supportive facilities around LIST's enrichment facility, including such facilities as deconversion and fuel fabrication.

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

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

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
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**9. INCOME TAXES**

The Company's provision for income taxes for the years ended September 30, 2024 and 2023 was \$0 and \$0, respectively.

Reconciliation of the Company's effective tax rate to statutory rates for the years ended September 30, 2024 and 2023 is as follows:

|                               | <b>2024</b> | <b>2023</b> |
|-------------------------------|-------------|-------------|
| Federal                       | 21.00%      | 21.00%      |
| State                         | 11.79%      | 5.14%       |
| Nondeductible expenses        | (0.27)%     | (17.00)%    |
| Tax rate change               | 3.14%       | 0.00%       |
| Other                         | 0.83%       | 1.07%       |
| Change in valuation allowance | (36.49)%    | (27.04)%    |
|                               | <u>\$ -</u> | <u>\$ -</u> |

The Company's deferred tax assets (liabilities) consist of the following as of September 30, 2024 and 2023:

|                                   | <b>2024</b>        | <b>2023</b>        |
|-----------------------------------|--------------------|--------------------|
| <b>Deferred tax assets:</b>       |                    |                    |
| Net operating loss carryforwards  | \$ 3,987,674       | 1,583,460          |
| Research and development expenses | 885,849            | 387,710            |
| Stock-based compensation          | 242,891            | -                  |
| Depreciation and amortization     | 272,835            | -                  |
| Operating lease liabilities       | 633,354            | -                  |
| Contingent consideration          | 252,622            | -                  |
| Total deferred tax assets         | <u>6,275,225</u>   | <u>1,971,170</u>   |
| Valuation allowance               | <u>(5,675,186)</u> | <u>(1,971,170)</u> |
| Net deferred tax assets           | 600,039            | -                  |
| <b>Deferred tax liabilities:</b>  |                    |                    |
| ROU asset                         | (600,039)          | -                  |
|                                   | <u>\$ -</u>        | <u>\$ -</u>        |

As of September 30, 2024 and 2023, the Company had total net deferred tax assets of \$5,675,186 and \$1,971,170, respectively. A valuation allowance is required to reduce deferred tax assets reported if, based on the weight of the evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets depends on the generation of future taxable income during those periods in which those temporary differences are deductible.

After consideration of all the evidence, both positive and negative, management determined that a 100% valuation allowance was necessary as of September 30, 2024 and 2023 in the amount of \$5,675,186 and \$1,971,170, respectively, to reduce the deferred tax assets to the amount that will more likely than not be realized. The increase in the valuation allowance during the years ended September 30, 2024 and 2023 was \$3,704,016 and \$1,689,842, respectively.

As of September 30, 2024, the Company, subject to limitations, had gross operating loss carry forwards of approximately \$12.2 million available to offset future taxable income which never expires but has annual limitations of 80% of the Company's taxable income.

**NANO NUCLEAR ENERGY INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**As of September 30, 2024**

**10. SUBSEQUENT EVENTS**

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

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

Between October 1, 2024 and the date that the consolidated financial statements were issued, 179,375 underwriter warrants with an exercise price of \$5.00 per share were exercised on a cashless basis to purchase 141,484 Common Stock, 132,600 warrants were exercised to purchase 66,300 Common Stock at an exercise price of \$20.00 per share generating gross proceeds of approximately \$1,326,000, 746,216 warrants were exercised to purchase 373,108 Common Stock at an exercise price of \$17.00 per share generating gross proceeds of approximately \$6,343,000, 125,000 stock options were exercised to purchase 125,000 common shares at an exercise price of \$1.50 per share generating proceeds of approximately \$187,500, and 240,000 stock options were exercised to purchase 240,000 common shares at an exercise price of \$3.00 per share generating proceeds of approximately \$720,000.

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

On December 18, 2024, the Company entered into an asset purchase agreement with Ultra Safe Nuclear Corporation and certain of its subsidiaries (collectively, “USNC”) to acquire select nuclear energy technology assets on an as-is, where-is basis, including USNC’s micro modular nuclear reactor business marketed as a MMR Energy System, and transportable fission power system technology business marketed as a Pylon Transportable Reactor Platform, including certain contracts, intellectual property rights, demonstration projects and the equity interests of two non-U.S. entities (collectively, “USNC Assets”), for a total purchase price of \$8.5 million in cash through an auction process (“Auction”) conducted pursuant to Section 363 of the U.S. Bankruptcy Code in connection with USNC’s pending Chapter 11 bankruptcy proceedings. The closing of the acquisition is expected to occur in the near future and remains subject to satisfaction of customary closing conditions in a bankruptcy proceeding. On December 18, 2024, the United States Bankruptcy Court for the District of Delaware, the Bankruptcy Court overseeing USNC’s bankruptcy held a hearing where it approved the sale of the USNC Assets to us. In the Auction, we submitted a bid for the acquisition of substantially all of the assets of USNC, including their fuel business and their technology assets marketed as EmberCore and Nuclear Thermal Propulsion (NTP) (such assets other than the USNC Assets, the “Other USNC Assets”), and was selected as the back-up bidder for the Other USNC Assets in the Auction. In the event that the winning bidder of the Other USNC Assets in the Auction fails to consummate such acquisition, we will be required to acquire all such Other USNC Assets in addition to the USNC Assets for a total purchase price, inclusive of the \$8.5 million for the USNC Assets, of \$36,190,000.

## EXHIBIT INDEX

| <b>Exhibit Number</b> | <b>Description of Document</b>  |
|-----------------------|---|
| 3.1                   | <a href="#">Articles of Incorporation of the Registrant (1)</a>   |
| 3.2                   | <a href="#">Certificate of Amendment to Articles of Incorporation, dated March 4, 2024 (1)</a>  |
| 3.3                   | <a href="#">Amended and Restated Bylaws of the Registrant (1)</a>   |
| 4.1                   | <a href="#">Specimen Common Stock Certificate (1)</a>   |
| 4.2                   | <a href="#">Underwriter's Warrant, dated May 10, 2024 (2)</a>   |
| 4.3                   | <a href="#">Underwriter's Warrant, dated July 15, 2024 (3)</a>  |
| 4.4                   | <a href="#">Underwriter's Warrant, dated October 25, 2024 (5)</a>   |
| 4.5                   | <a href="#">Warrant Agent Agreement, dated July 11, 2024, by and between the Company and VStock Transfer, LLC (3)</a>   |
| 4.6                   | <a href="#">2024 B Warrant Agent Agreement, dated October 23, 2024, by and between the Company and VStock Transfer, LLC (5)</a>   |
| 4.7                   | <a href="#">Form of Common Stock Purchase Warrant, dated November 27, 2024, between the Company and the Investors (7)</a>   |
| 10.1                  | <a href="#">Consulting Agreement dated February 8, 2022, by and between Registrant and Chief Executive Officer (1)^</a>   |
| 10.2                  | <a href="#">Consulting Agreement dated February 8, 2022, by and between Registrant and Chief Financial Officer (1)^</a>   |
| 10.3                  | <a href="#">Employment Agreement, dated October 17, 2024 by and between the Registrant and Jay Jiang Yu (4)</a>   |
| 10.4                  | <a href="#">Independent Director Agreement between Registrant and Dr. Tsun Yee Law (1)</a>  |
| 10.5                  | <a href="#">Independent Director Agreement between Registrant and Diane Hare (1)</a>  |
| 10.6                  | <a href="#">Independent Director Agreement between Registrant and Dr. Kenny Yu (1)</a>  |
| 10.7                  | <a href="#">2023 Stock Option Plan #1 (1)</a>   |
| 10.8                  | <a href="#">Form of 2023 Stock Option Agreement under 2023 Stock Option Plan #1 (1)</a>   |
| 10.9                  | <a href="#">2023 Stock Option Plan #2 (1)</a>   |
| 10.10                 | <a href="#">Form of 2023 Stock Option Agreement under 2023 Stock Option Plan #2 (1)</a>   |
| 10.11                 | <a href="#">Services Agreement, dated July 29, 2024, by and between the Registrant and Cambridge AtomWorks (2024) Limited (6)+^</a>   |
| 10.12                 | <a href="#">Memorandum of Understanding dated March 30, 2023 by and between HALEU Energy Fuel Inc. and Centrus Energy Corp. (1)^</a>  |
| 10.13                 | <a href="#">Form of Consulting Agreement by and between Registrant and each Executive Advisory Board Member (1)^</a>  |
| 10.14                 | <a href="#">Strategic Partnership Project Agreement No. 23SP817 and its amendment dated February 14, 2023 and December 6, 2023, respectively, by and between the Registrant and Battelle Energy Alliance, LLC (1)+^</a> |
| 10.15                 | <a href="#">Services Agreement dated January 19, 2024, by and between the Registrant and Nuclear Education and Engineering Consulting LLC (1)+^</a>   |
| 10.16                 | <a href="#">Lease Agreement dated March 7, 2024, by and between the Registrant and Charney Management LLC (1)</a>   |
| 10.17                 | <a href="#">Exclusive Patent License Agreement, dated April 3, 2024, by and between the Registrant and Battelle Energy Alliance, LLC (1)+^</a>  |
| 10.18                 | <a href="#">Partnership Agreement, dated November 4, 2024, between the Registrant and LIS Technologies Inc.*</a>  |
| 10.19                 | <a href="#">Amendment No.1 to Partnership Agreement, dated November 5, 2024, between the Registrant and LIS Technologies Inc.*</a>  |
| 10.20                 | <a href="#">Asset Purchase Agreement dated December 18, 2024 by and among the Registrant and Ultra Safe Nuclear Corporation and certain of its subsidiaries (8)^</a>  |
| 10.21                 | <a href="#">Form of Securities Purchase Agreement, dated November 24, 2024, between the Company and the Investors (7)</a>   |
| 10.22                 | <a href="#">Form of Registration Rights Agreement, dated November 24, 2024, between the Company and the Investors (7)</a>   |
| 14.1                  | <a href="#">Amended and Restated Code of Business Conduct and Ethics (adopted December 27, 2024)*</a>   |
| 19.1                  | <a href="#">Amended and Restated Insider Trading Policy (adopted December 27, 2024)*</a>  |
| 21.1                  | <a href="#">List of Subsidiaries (6)</a>  |



| Exhibit Number | Description of Document   |
|----------------|---|
| 31.1           | <a href="#">Certification of the Principal Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*</a> |
| 31.2           | <a href="#">Certification of the Principal Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*</a> |
| 32.1           | <a href="#">Certification of the Principal Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**</a>   |
| 32.2           | <a href="#">Certification of the Principal Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**</a>   |
| 99.1           | <a href="#">Executive Compensation Clawback Policy (1)</a>  |
| 99.2           | <a href="#">Audit Committee Charter (1)</a>   |
| 99.3           | <a href="#">Compensation Committee Charter (1)</a>  |
| 99.4           | <a href="#">Nominating and Corporate Governance Committee Charter (1)</a>   |
| 101.INS        | Inline XBRL Instance Document*  |
| 101.SCH        | Inline XBRL Taxonomy Extension Schema Document*   |
| 101.CAL        | Inline XBRL Taxonomy Extension Calculation Linkbase Document*   |
| 101.DEF        | Inline XBRL Taxonomy Extension Definition Linkbase Document*  |
| 101.LAB        | Inline XBRL Taxonomy Extension Label Linkbase Document*   |
| 101.PRE        | Inline XBRL Taxonomy Extension Presentation Linkbase Document*  |
| 104            | Cover Page Interactive Data File (Embedded as Inline XBRL document and contained in Exhibit 101)*   |

\* Filed herewith.

\*\* Furnished herewith.

- (1) Filed as an exhibit to the registrant's Registration on Form S-1 (File No. 333-278076), filed with the SEC on May 1, 2024.
- (2) Filed as an exhibit to the registrant's Current Report on Form 8-K, filed with the SEC on May 13, 2024.
- (3) Filed as an exhibit to the registrant's Current Report on Form 8-K, filed with the SEC on July 15, 2024.
- (4) Filed as an exhibit to the registrant's Current Report on Form 8-K, filed with the SEC on October 18, 2024.
- (5) Filed as an exhibit to the registrant's Current Report on Form 8-K, filed with the SEC on October 25, 2024.
- (6) Filed as an exhibit to the registrant's Registration on Form S-1 (File No. 333-282750), filed with the SEC on October 21, 2024.
- (7) Filed as an exhibit to the registrant's Current Report on Form 8-K, filed with the SEC on November 27, 2024.
- (8) Filed as an exhibit to the registrant's Current Report on Form 8-K, filed with the SEC on December 26, 2024.

+ Certain portions of this exhibit are omitted pursuant to Item 601(b)(10)(iv) of Regulations S-K because they are not material and are the type that the registrant treats as private or confidential. The Registrant hereby agrees to furnish a copy of any omitted portion to the SEC upon request.

^ Certain portions of the exhibit have been omitted pursuant to Item 601(a)(6) of Regulations S-K. The Company hereby agrees to furnish a copy of any omitted portion to the SEC upon request.

^^ In accordance with Item 601(a)(5) of Regulation S-K, certain schedules or similar attachments to this exhibit have been omitted from this filing.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

December 30, 2024

NANO NUCLEAR ENERGY INC.

By: /s/ James Walker

James Walker  
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

| <u>Signature</u>                            | <u>Title</u>  | <u>Date</u>       |
|---|---|-------------------|
| <u>/s/ Jay Jiang Yu</u><br>Jay Jiang Yu     | Chairman of the Board and President                                     | December 30, 2024 |
| <u>/s/ James Walker</u><br>James Walker     | Chief Executive Officer and Director                                    | December 30, 2024 |
| <u>/s/ Jaisun Garcha</u><br>Jaisun Garcha   | Chief Financial Officer and Secretary<br>(Principal Accounting Officer) | December 30, 2024 |
| <u>/s/ Tsun Yee Law</u><br>Dr. Tsun Yee Law | Independent Director  | December 30, 2024 |
| <u>/s/ Diane Hare</u><br>Diane Hare         | Independent Director  | December 30, 2024 |
| <u>/s/ Kenny Yu</u><br>Dr. Kenny Yu         | Independent Director  | December 30, 2024 |

**NANO NUCLEAR ENERGY - LIS TECHNOLOGIES PARTNERSHIP AGREEMENT**  
**PARTNERSHIP AGREEMENT**

This Partnership Agreement (“Agreement”) is made and entered into as of the 4th day of November 2024 (“Effective Date”), by and between:

**Nano Nuclear Energy Inc. (“NANO” or “NNE”)**, a company incorporated under the laws of Nevada, with its principal place of business at 10 Times Square 30th Floor, NY, NY 10018,

and

**LIS Technologies Inc. (“LIST”)**, a company incorporated under the laws of Nevada, with its principal place of business at 203 Victorious Blvd E, Building K-1330, Oak Ridge, TN 37830.

NANO and LIST are each referred to herein as a “Party” and collectively as the “Parties.”

**RECITALS:**

WHEREAS, NANO is engaged in the development and deployment of advanced nuclear energy technologies, including microreactors and fuel fabrication facilities;

WHEREAS, LIST is engaged in the research, development, and commercialization of laser enrichment technologies for uranium hexafluoride (UF6);

WHEREAS, NANO wishes to invest in LIST to support its development and research and development (R&D) efforts, and to provide deconversion and fuel fabrication facilities that will enable LIST’s enriched UF6 to become part of an integrated fuel supply chain;

WHEREAS, LIST plans to provide NANO with enriched UF6 for NANO’s reactor systems and for LIST to be a profit-sharing partner for the final sale of fabricated fuel plates or fuel rods to customers;

WHEREAS, the Parties wish to work together to share development costs where there is an overlapping benefit to both companies, particularly in the development of their fuel deconversion and integrated fuel fabrication facility;

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein, the Parties agree as follows:

### 1. INVESTMENT IN LIS TECHNOLOGIES

1.1 **Investment by NANO:** NANO agrees to make an initial investment of \$2,000,000 USD into LIST to support its development and R&D efforts. The specific terms, including the amount, timing, and structure of the investment, will be agreed separately to this agreement.

1.2 **Use of Investment Funds:** LIST shall utilize the investment provided by NANO for the purpose of advancing its laser enrichment technology and related R&D activities, as mutually agreed by the Parties.

### 2. INTEGRATED FUEL SUPPLY CHAIN

2.1 **Deconversion and Fabrication Facilities:** NANO will provide the necessary deconversion and fuel fabrication facilities required to turn LIST's enriched UF6 into a fully integrated fuel supply chain capable of receiving UF6 from a conversion facility and outputting fabricated fuel for reactor systems.

2.2 **Provision of UF6:** LIST agrees to provide NANO with enriched UF6 for use in NANO's reactor systems.

2.3 **Profit-Sharing Agreement:** The Parties agree to enter into a profit-sharing arrangement regarding the final sale of fabricated fuel plates or fuel rods to customers, where LIST have provided the enriched UF6. The final sales price of fabricated fuel/rods to utilities or reactor developers shall include enrichment services, fuel deconversion and fuel fabrication. LIST will be paid for its initial enrichment services, plus a percentage split of post-processed fuel. The terms of profit sharing, including the percentage split and other relevant details, shall be set forth in a separate profit-sharing agreement.

### 3. SHARED DEVELOPMENT COSTS

3.1 **Mutual Cost Sharing:** The Parties agree to share the costs of development in areas where there is an overlapping benefit to both companies, including but not limited to, the development of the integrated fuel facility, and joint marketing and sales efforts.

**3.2 Allocation of Costs:** The allocation of costs shall be mutually agreed upon in writing by the Parties on a case-by-case basis, taking into consideration the specific projects or activities involved and the proportional benefit to each Party.

#### **4. ADDITIONAL MUTUAL BENEFITS**

**4.1 Joint R&D Initiatives:** The Parties shall collaborate on joint R&D initiatives that advance the technologies and capabilities of both companies, particularly in the areas of deconversion and fuel fabrication.

**4.2 Intellectual Property (IP) Rights:** Any intellectual property developed jointly by the Parties under this Agreement shall be co-owned by the Parties, with each Party retaining a 50% interest. The Parties shall negotiate in good faith to establish appropriate IP protection, licensing, and commercialization strategies.

**4.3 Joint Marketing and Sales Efforts:** The Parties agree to jointly market and sell the products resulting from their collaboration, including enriched UF<sub>6</sub>, deconverted uranium products, and fabricated fuel. The Parties shall share marketing and sales expenses in proportion to their respective contributions.

**4.4 Preferred Supplier Status:** NANO shall be considered a preferred customer of LIST for enriched UF<sub>6</sub>, specifically for use in NANO's reactor systems.

**4.5 Other Suppliers:** LIST retains the right to independently enter into supplier contracts with other customers, either on US soil or globally, for its enrichment services. Said customers may include, but not limited to, Nuclear Utilities, SMR companies, Advanced Reactor companies, the US navy, etc.

#### **5. CONFIDENTIALITY**

**5.1 Confidential Information:** Each Party agrees to maintain the confidentiality of all proprietary or confidential information disclosed by the other Party in connection with this Agreement, and shall not disclose such information to any third party without the prior written consent of the disclosing Party.

## 6. TERM AND TERMINATION

6.1 **Term:** This Agreement shall commence on the Effective Date and continue for a period of 15 years, unless terminated earlier by either Party in accordance with the terms set forth herein.

6.2 **Termination for Cause:** Either Party may terminate this Agreement upon 90 days' written notice if the other Party is in material breach of its obligations under this Agreement and fails to cure such breach within 30 days after receipt of written notice thereof.

## 7. DISPUTE RESOLUTION

7.1 **Negotiation:** In the event of any dispute, controversy, or claim arising out of or relating to this Agreement, the Parties shall first attempt in good faith to resolve such dispute through negotiation.

7.2 **Arbitration:** If the Parties are unable to resolve the dispute through negotiation within 30 days, the dispute shall be finally settled by binding arbitration in accordance with the rules of American Arbitration Association Body (AAA), and the decision of the arbitrator(s) shall be final and binding on the Parties.

## 8. MISCELLANEOUS

8.1 **Entire Agreement:** This Agreement constitutes the entire understanding between the Parties with respect to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, representations, and warranties, both written and oral.

8.2 **Amendments:** This Agreement may not be amended or modified except in writing signed by both Parties.

8.3 **Governing Law:** This Agreement shall be governed by and construed in accordance with the laws of New York State, without regard to its conflict of laws principles.

8.4 **Counterparts:** This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

**IN WITNESS WHEREOF, the Parties have executed this Partnership Agreement as of the Effective Date.**

**Nano Nuclear Energy Inc. (NANO)**

By: /s/ James Walker  
Name: James Walker  
Title: Chief Executive Officer  
Date: November 4<sup>th</sup>, 2024

**LIS Technologies (LIST)**

By: /s/ Christo Liebenberg  
Name: Christo Liebenberg  
Title: Chief Executive Officer  
Date: November 4<sup>th</sup>, 2024

**AMENDMENT NO. 1 TO PARTNERSHIP AGREEMENT**

This Amendment No. 1 (this “**Amendment**”) to that certain Partnership Agreement, dated as of August 19, 2024 (the “**Partnership Agreement**”), is entered into as of November 5, 2024 (the “**Effective Date**”), by and between Nano Nuclear Energy Inc., a Nevada corporation (“**NANO**”), and LIS Technologies Inc., a Nevada corporation (“**LIST**”). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Partnership Agreement.

**WHEREAS**, pursuant to Section 8.2 of the Partnership Agreement, the Partnership Agreement may be modified or changed in a written instrument signed by each of the Parties; and

**WHEREAS**, the Parties now desire to amend and clarify certain provisions of the Partnership Agreement as provided for in this Amendment.

**NOW, THEREFORE**, in consideration of the mutual agreements contained herein, the Parties hereby agree to amend the Partnership Agreement as follows:

1. LIST hereby acknowledges and confirms that NANO has fulfilled its obligation to invest \$2,000,000 into LIST as contemplated by Section 1.1 of the Partnership Agreement.

2. Amendments. As of the Effective Date, the Partnership Agreement is amended as follows:

(a) Section 2.2 of the Partnership Agreement is amended and restated in its entirety to read as follows:

“2.2 **Provision of UF6**: At no cost to NANO, LIST agrees to provide NANO (at NANO’s request and in such amounts as NANO and LIST may agree in writing) with enriched UF6 for (i) use in NANO’s reactor systems and (ii) for further reprocessing and sale to third party customers by NANO, including utilities and reactor developers. The Parties shall share in the profit from any such third-party sales pursuant to the profit sharing agreement to be entered into as contemplated by Section 2.3.”

(b) Section 2.3 of the Partnership Agreement is amended and restated in its entirety to read as follows:

“2.3 **Profit-Sharing Agreement**: The Parties agree to enter into a profit sharing agreement regarding the final sale of fabricated fuel plates or fuel rods to third-party customers in connection with which LIST has provided enriched UF6 to NANO. The final sales price of fabricated fuel/rods to third parties shall include enrichment services, fuel deconversion and fuel fabrication. LIST will be paid for its initial enrichment services, plus a percentage split of sales of post-processed fuel. The terms of profit sharing, including the percentage split and other relevant details, shall be set forth in a separate profit-sharing agreement.”

(c) Section 4.1 of the Partnership Agreement is amended and restated in its entirety to read as follows:

“4.1 **Joint R&D Initiatives**: The Parties shall collaborate on joint R&D initiatives that advance the technologies and capabilities of each of the Parties, particularly in the areas of deconversion and fuel fabrication.”

3. No Further Amendment. Except as provided herein, the Partnership Agreement shall remain unchanged and in full force and effect.

4. Governing Law. This Amendment shall be governed by and construed in accordance with the laws of the State of New York applicable to contracts executed in and to be performed in that State.

5. Miscellaneous. This Amendment may be executed and delivered (including by facsimile or portable document format (pdf) transmission) in one or more counterparts, and by the different parties hereto in separate counterparts, each of which when executed shall be deemed to be an original but all of which taken together shall constitute one and the same agreement.

**IN WITNESS WHEREOF**, this Amendment is executed and entered into as of the Effective Date.

NANO NUCLEAR ENERGY INC.

LIS TECHNOLOGIES INC.

By: /s/ James Walker

By: /s/ Christo J. Liebenberg

Name: James Walker

Name: Christo J. Liebenberg

Title: Chief Executive Officer

Title: Chief Executive Officer



## NANO NUCLEAR ENERGY INC.

## AMENDED AND RESTATED CODE OF BUSINESS CONDUCT AND ETHICS

Adopted: December 27, 2024

**1. Introduction**

The Board of Directors (the “Board”) of Nano Nuclear Energy Inc., a Nevada corporation (the “Company”), has adopted this code of ethics (this “Code”), effective as of the date first referenced above, and as the same may be amended from time to time by the Board, which is applicable to all of the Company’s directors, officers, employees and contractors performing employee functions to:

- promote honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- promote the full, fair, accurate, timely and understandable disclosure in reports and documents that the Company files with, or submits to, the Securities and Exchange Commission (the “SEC”), as well as in other public communications made by or on behalf of the Company;
- promote compliance with applicable governmental laws, rules and regulations;
- deter wrongdoing; and
- require prompt internal reporting of breaches of, and accountability for adherence to, this Code.

This Code may be amended and modified by the Board. In this Code, references to the “Company” mean Nano Nuclear Energy Inc. and, in appropriate context, the Company’s subsidiaries, if any.

**2. Honest, Ethical and Fair Conduct**

Each person owes a duty to the Company to act with integrity. Integrity requires, among other things, being honest, fair and candid. Deceit, dishonesty and subordination of principle are inconsistent with integrity. Service to the Company should never be subordinated to personal gain and advantage.

Each person must:

- act with integrity, including being honest and candid while still maintaining the confidentiality of the Company’s information where required or when in the Company’s interests;
- observe all applicable governmental laws, rules and regulations;
- comply with the requirements of applicable accounting and auditing standards, as well as Company policies, in order to maintain a high standard of accuracy and completeness in the Company’s financial records and other business-related information and data;
- adhere to a high standard of business ethics and not seek competitive advantage through unlawful or unethical business practices;
- deal fairly with the Company’s customers, suppliers, competitors and employees;
- refrain from taking advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of material facts or any other unfair-dealing practice;
- protect the assets of the Company and ensure their proper use;

- Avoid conflicts of interest, wherever possible, except as may be allowed under guidelines or resolutions approved by the Board (or the appropriate committee of the Board) or as disclosed in the Company’s public filings with the SEC. Anything that would be a conflict for a person subject to this Code also will be a conflict for a member of his or her immediate family or any other close relative. Examples of conflict of interest situations include, but are not limited to, the following:
  - any significant ownership interest in any entity with which the Company has a material commercial relationship, including any supplier or customer;
  - any consulting, director or employment relationship with any entity with which the Company has a material commercial relationship, including any supplier or customer;
  - the receipt of any money, non-nominal gifts or excessive entertainment from any entity with which the Company has current or prospective business dealings;
  - selling anything to the Company or buying anything from the Company, except on the same terms and conditions as comparable officers or directors are permitted to so purchase or sell (and, in the absence of any such comparable officer or director, on the same terms and conditions as a third party would buy or sell a comparable item in an arm’s-length transaction);
  - any other financial transaction, arrangement or relationship (including any indebtedness or guarantee of indebtedness) involving the Company; and
  - any other circumstance, event, relationship or situation in which the personal interest of a person subject to this Code interferes - or even appears to interfere - with the interests of the Company as a whole.

Notwithstanding the foregoing, nothing herein shall prohibit a director, officer, employee or contractor of the Company from reporting possible violations of federal law or regulation to any governmental agency or entity or making other disclosures that are protected pursuant to federal law or regulation. Prior authorization from the Company is not required in order to make any such reports or disclosures and the reporting individual is not required to notify the Company that such reports or disclosures have been made. In addition, pursuant to the Defend Trade Secrets Act, employees shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and solely for the purpose of reporting or investigating a suspected violation of law; or is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. Should any provision in this Code conflict with this provision, this provision shall control.

### **3. Disclosure**

The Company strives to ensure that the contents of and the disclosures in the reports and documents that the Company files with the SEC and other public communications shall be full, fair, accurate, timely and understandable in accordance with applicable disclosure standards, including standards of materiality, where appropriate. Each person subject to this Code must:

- not knowingly misrepresent, or cause others to misrepresent, facts about the Company to others, whether within or outside the Company, including to the Company’s independent registered public accountants, governmental regulators, self-regulating organizations and other governmental officials, as appropriate; and
- in relation to his or her area of responsibility, properly review and critically analyze proposed disclosure for accuracy and completeness.

In addition to the foregoing, the Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”) of the Company and each subsidiary of the Company (or persons performing similar functions), and each other person that typically is involved in the financial reporting of the Company must familiarize himself or herself with the disclosure requirements applicable to the Company as well as the business and financial operations of the Company.

Each person must promptly bring to the attention of the Chairman of the Board any information he or she may have concerning (a) significant deficiencies in the design or operation of internal and/or disclosure controls that could adversely affect the Company's ability to record, process, summarize and report financial data or (b) any fraud that involves management or other employees who have a significant role in the Company's financial reporting, disclosures or internal controls.

#### **4. Compliance**

It is the Company's obligation and policy to comply with all applicable governmental laws, rules and regulations. All persons subject to this Code are expected to understand, respect and comply with all of the laws, regulations, policies and procedures that apply to them in their positions with the Company. Employees and individual contractors are responsible for talking to their supervisors to determine which laws, regulations and Company policies apply to their position and what training is necessary to understand and comply with them.

All person subject to this Code are directed to specific policies and procedures available to persons they supervise.

#### **5. Reporting and Accountability**

The Board is responsible for applying this Code to specific situations in which questions are presented to it and has the authority to interpret this Code in any particular situation. Any person who becomes aware of any existing or potential breach of this Code is required to notify the Chairman of the Board promptly. Failure to do so is, in and of itself, a breach of this Code.

Specifically, each person must:

- notify the Chairman of the Board promptly of any existing or potential violation of this Code; and
- not retaliate against any other person for reports of potential violations that are made in good faith.

The Company will follow the following procedures in investigating and enforcing this Code and in reporting on this Code:

- The Board will take all appropriate action to investigate any breaches reported to it.
- Upon determination by the Board that a breach has occurred, the Board (by majority decision) will take or authorize such disciplinary or preventive action as it deems appropriate, after consultation with the Company's internal or external legal counsel, up to and including dismissal or, in the event of criminal or other serious violations of law, notification of the SEC or other appropriate law enforcement authorities.

No person following the above procedure shall, as a result of following such procedure, be subject by the Company or any officer or employee thereof to discharge, demotion suspension, threat, harassment or in any manner, discrimination against such person in terms and conditions of employment.

#### **6. Waivers and Amendments**

Any waiver (defined below) or an implicit waiver (defined below) from a provision of this Code for the principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions or any amendment (as defined below) to this Code is required to be disclosed in a Current Report on Form 8- K filed with the SEC. In lieu of filing a Current Report on Form 8-K to report any such waivers or amendments, the Company may provide such information on its website, in the event that it establishes one in the future, and if it keeps such information on the website for at least 12 months and discloses the website address as well as any intention to provide such disclosures in this manner in its most recently filed Annual Report on Form 10-K.

A “waiver” means the approval by the Board of a material departure from a provision of this Code. An “implicit waiver” means the Company’s failure to take action within a reasonable period of time regarding a material departure from a provision of this Code that has been made known to an executive officer of the Company. An “amendment” means any amendment to this Code other than minor technical, administrative or other non-substantive amendments hereto.

All persons should note that it is not the Company’s intention to grant or to permit waivers from the requirements of this Code. The Company expects full compliance with this Code.

#### **7. Insider Information and Securities Trading**

All persons subject to this Code are also subject to the Company’s Insider Trading Policy, as the same may be amended and/or restated from time to time. Violations of such Insider Trading Policy will be deemed a violation of this Code, unless the Board approves otherwise.

#### **8. Financial Statements and Other Records**

All of the Company’s books, records, accounts and financial statements must be maintained in reasonable detail, must appropriately reflect the Company’s transactions and must both conform to applicable legal requirements and to the Company’s system of internal controls. Unrecorded or “off the books” funds or assets should not be maintained unless permitted by applicable law or regulation.

Records should always be retained or destroyed according to the Company’s record retention policies. In accordance with those policies, in the event of litigation or governmental investigation, please consult the Board or the Company’s internal or external legal counsel.

#### **9. Improper Influence on Conduct of Audits**

No director or officer, or any other person acting under the direction thereof, shall directly or indirectly take any action to coerce, manipulate, mislead or fraudulently influence any public or certified public accountant engaged in the performance of an audit or review of the financial statements of the Company or take any action that such person knows or should know that if successful could result in rendering the Company’s financial statements materially misleading. Any person who believes such improper influence is being exerted should report such action to such person’s supervisor, or if that is impractical under the circumstances, to any of the Company’s directors.

Types of conduct that could constitute improper influence include, but are not limited to, directly or indirectly:

- Offering or paying bribes or other financial incentives, including future employment or contracts for non-audit services;
- Providing an auditor with an inaccurate or misleading legal analysis;
- Threatening to cancel or canceling existing non-audit or audit engagements if the auditor objects to the Company’s accounting;
- Seeking to have a partner removed from the audit engagement because the partner objects to the Company’s accounting;
- Blackmailing; and
- Making physical threats.

#### **10. Anti-Corruption Laws**

The Company complies with the anti-corruption laws of the countries in which it does business, including the U.S. Foreign Corrupt Practices Act (“FCPA”). Directors, officers and employees will not directly or indirectly give anything of value to government officials, including employees of state-owned enterprises or foreign political candidates. These requirements apply both to Company employees and agents, such as third party sales representatives, no matter where they are doing business. If you are authorized to engage agents on the Company’s behalf, you are responsible for ensuring they are reputable and for obtaining a written agreement to uphold the Company’s standards in this area.

#### **11. Violations**

Violation of this Code is grounds for disciplinary action up to and including termination of employment. Such action is in addition to any civil or criminal liability which might be imposed by any court or regulatory agency.

#### **12. Other Policies and Procedures**

Any other policy or procedure set out by the Company in writing or made generally known to employees, officers or directors of the Company prior to the date hereof or hereafter are separate requirements and remain in full force and effect.

#### **13. Inquiries**

All inquiries and questions in relation to this Code or its applicability to particular people or situations should be addressed to the Company’s Chief Financial Officer, or such other compliance officer as shall be designated from time to time by the Company.

**PROVISIONS FOR  
CHIEF EXECUTIVE OFFICER AND SENIOR FINANCIAL OFFICERS**

The CEO and all senior financial officers, including the CFO and principal accounting officer, are bound by the provisions set forth herein relating to ethical conduct, conflicts of interest, and compliance with law. In addition to this Code, the CEO and senior financial officers are subject to the following additional specific policies:

1. Act with honesty and integrity, avoiding actual or apparent conflicts between personal, private interests and the interests of the Company, including receiving improper personal benefits as a result of his or her position.
2. Disclose to the CEO and the Board any material transaction or relationship that reasonably could be expected to give rise to a conflict of interest.
3. Perform responsibilities with a view to causing periodic reports and documents filed with or submitted to the SEC and all other public communications made by the Company to contain information that is accurate, complete, fair, objective, relevant, timely and understandable, including full review of all annual and quarterly reports.
4. Comply with laws applicable to the Company, including but not limited to rules and regulations of U.S. federal, state and other local governments and with the rules and regulations of private and public regulatory agencies having jurisdiction over the Company.
5. Act in good faith, responsibly, with due care, competence and diligence, without misrepresenting or omitting material facts or allowing independent judgment to be compromised or subordinated.
6. Respect the confidentiality of information acquired in the course of performance of his or her responsibilities except when authorized or otherwise legally obligated to disclose any such information; not use confidential information acquired in the course of performing his or her responsibilities for personal advantage.
7. Share knowledge and maintain skills important and relevant to the needs of the Company, its shareholders and other constituencies and the general public.
8. Proactively promote ethical behavior among subordinates and peers in his or her work environment and community.
9. Use and control all corporate assets and resources employed by or entrusted to him or her in a responsible manner.
10. Not use corporate information, corporate assets, corporate opportunities or his or her position with the Company for personal gain; not compete directly or indirectly with the Company.
11. Comply in all respects with this Code.
12. Advance the Company's legitimate interests when the opportunity arises.

The Board will investigate any reported violations and will oversee an appropriate response, including corrective action and preventative measures. Any officer who violates this Code will face appropriate, case specific disciplinary action, which may include demotion or discharge.

Any request for a waiver of any provision of this Code must be in writing and addressed to the Chairman of the Board. Any waiver of this Code will be disclosed as provided in Section 6 of this Code.

It is the policy of the Company that each officer covered by this Code shall acknowledge and certify to the foregoing annually and file a copy of such certification with the Chairman of the Board.

**OFFICER'S CERTIFICATION**

I have read and understand the foregoing Code. I hereby certify that I am in compliance with the foregoing Code and I will comply with the Code in the future. I understand that any violation of the Code will subject me to appropriate disciplinary action, which may include demotion or discharge.

Dated: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

## AMENDED AND RESTATED INSIDER TRADING COMPLIANCE MANUAL

## NANO NUCLEAR ENERGY INC.

Adopted: December 27, 2024

In order to take an active role in the prevention of insider trading violations by its officers, directors, employees, consultants, attorneys, advisors and other related individuals, the Board of Directors (the “**Board**”) of Nano Nuclear Energy Inc., a Nevada corporation (the “**Company**”), has adopted the policies and procedures described in this Insider Trading Compliance Manual.

**I. Adoption of Insider Trading Policy.**

Effective as of the date first written above, the Board has adopted the Amended and Restated Insider Trading Policy attached hereto as Exhibit A (as the same may be amended from time to time by the Board, the “**Policy**”), which prohibits trading based on “material, nonpublic information” regarding the Company or any company whose securities are listed for trading or quotation in the United States (“**Material Non-Public Information**”).

This Policy covers, as applicable in accordance with its terms, all officers and directors of the Company and its subsidiaries, all other employees of the Company and its subsidiaries, and consultants, contractors or advisory board members to or of the Company or its subsidiaries who have or may have access to Material Non-Public Information and members of the immediate family or household of any such person (the “**Covered Persons**”). This Policy (and/or a summary thereof) is to be delivered to all Covered Persons upon the commencement of their relationships with the Company.

**II. Designation of Certain Persons.**

**A. Section 16 Individuals.** All directors and executive officers of the Company will be subject to the reporting and liability provisions of Section 16 of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”) and the rules and regulations promulgated thereunder (“**Section 16 Individuals**”).

**B. Other Persons Subject to Policy.** In addition, Covered Persons other than Section 16 Individuals have, or may have from time to time, access to Material Non-Public Information and together with the Section 16 Individuals, are subject to the Policy, including the pre-clearance requirement described in Section IV. A. below.

**C. Post-Termination Transactions.** This Policy continues to apply to transactions in Company securities even after a Covered Person has resigned or terminated employment. If the Covered Person who resigns or separates from the Company is in possession of Material Non-Public Information at that time, he or she may not trade in Company securities until that information has become public or is no longer material (as determined by the Insider Trading Compliance Officer).



### **III. Appointment of Insider Trading Compliance Officer.**

By the adoption of this Policy, the Board has appointed the Company's Chief Financial Officer or any other senior executive officer of the Company expressly approved by the Board as the Insider Trading Compliance Officer (the "**Compliance Officer**"). As of the date of adoption of this Policy, Jaisun Garcha, the Company's Chief Financial Officer, is the Compliance Officer. Any future change in the Compliance Officer shall be communicated to all Covered Persons.

### **IV. Duties of Compliance Officer.**

The Compliance Officer has been designated by the Board to handle any and all matters relating to the Company's Insider Trading Compliance Program. Certain of those duties may require the advice of outside counsel with special expertise in securities issues and relevant law. The duties of the Compliance Officer shall include the following:

A. Pre-clearing all transactions involving the Company's securities by the Section 16 Individuals and those Covered Persons having regular access to Material Non-Public Information in order to determine compliance with the Policy, insider trading laws, Section 16 of the Exchange Act and Rule 144 promulgated under the Securities Act of 1933, as amended ("**Rule 144**"). Attached hereto as Exhibit B is a Pre-Clearance Checklist to assist the Compliance Officer's performance of this duty.

B. Assisting in the preparation and filing of Section 16 reports (Forms 3, 4 and 5) for all Section 16 Individuals, bearing in mind, however, that the preparation of such reports is undertaken by the Company as a courtesy only and that the Section 16 Individuals alone (and not the Company, its employees or advisors) shall be solely responsible for the content and filing of such reports and for any violations of Section 16 under the Exchange Act and related rules and regulations.

C. Serving as the designated recipient at the Company of copies of reports filed with the Securities and Exchange Commission ("**SEC**") by Section 16 Individuals under Section 16 of the Exchange Act.

D. Performing periodic reviews of available materials, which may include Forms 3, 4 and 5, Form 144, officers and director's questionnaires, and reports received from the Company's stock administrator and transfer agent, to determine trading activity by officers, directors and others who have, or may have, access to Material Non-Public Information.

E. Circulating the Policy (and/or a summary thereof) to all covered employees, including Section 16 Individuals, on an annual basis, and providing the Policy and other appropriate materials to new officers, directors and others who have, or may have, access to Material Non-Public Information.

F. Assisting the Board in implementation of the Policy and all related Company policies.

G. Coordinating with Company internal or external legal counsel regarding all securities compliance matters.

H. Retaining copies of all appropriate securities reports, and maintaining records of his or her activities as Compliance Officer.

[Acknowledgement Appears on the Next Page]

**ACKNOWLEDGMENT**

I hereby acknowledge that I have received a copy of Nano Nuclear Energy Inc.'s **Amended and Restated Insider Trading Compliance Manual** (the "**Insider Trading Manual**"). Further, I certify that I have reviewed the Insider Trading Manual, understand the policies and procedures contained therein and agree to be bound by and adhere to these policies and procedures.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature  
Name:

**Exhibit A**

**NANO NUCLEAR ENERGY INC.**

**AMENDED AND RESTATED INSIDER TRADING POLICY  
and Guidelines with Respect to Certain Transactions in Company Securities**

**APPLICABILITY OF POLICY**

This Policy applies to all transactions in the Company's securities, including common stock, options and warrants to purchase common stock and any other securities the Company may issue from time to time, such as preferred stock, warrants and convertible notes, as well as to derivative securities relating to the Company's stock, whether or not issued by the Company, such as exchange-traded options. It applies, as applicable, to all officers and directors of the Company, all other employees of the Company and its subsidiaries, and consultants, contractors or advisory board members to or of the Company or its subsidiaries who have or may have access to Material Nonpublic Information (as defined below) regarding the Company and members of the immediate family or household of any such person. This group of people is sometimes referred to in this Policy as "**Covered Persons**." As used herein, the term "**Restricted Insiders**" means those Covered Persons who are also Section 16 Individuals, and the members of the immediate family or household of any such person. This Policy also applies to any person who receives Material Nonpublic Information from any Covered Person.

Any person who possesses Material Nonpublic Information regarding the Company is a Covered Person for so long as such information is not publicly known.

**DEFINITION OF MATERIAL NONPUBLIC INFORMATION**

It is not possible to define all categories of material information. However, the U.S. Supreme Court and other federal courts have ruled that information should be regarded as "material" if there is *a substantial likelihood* that a *reasonable investor*:

- (1) *would consider the information important in making an investment decision; and*
- (2) *would view the information as having significantly altered the "total mix" of available information about the Company.*

"Nonpublic" information is information that has not been previously disclosed to the general public and is otherwise not available to the general public.

While it may be difficult to determine whether particular information is material, there are various categories of information that are particularly sensitive and, as a general rule, should always be considered material. In addition, material information may be positive or negative. Examples of such information may include:

- Financial results

- Information relating to the Company's stock exchange listing or SEC regulatory issues
- Information regarding regulatory review of Company products
- Intellectual property and other proprietary/scientific information
- Projections of future earnings or losses
- Major contract awards, cancellations or write-offs
- Joint ventures/commercial partnerships with third parties
- Research milestones and related payments or royalties
- News of a pending or proposed merger or acquisition
- News of the disposition of material assets
- Impending bankruptcy or financial liquidity problems
- Gain or loss of a substantial customer or supplier
- New product announcements of a significant nature
- Significant pricing changes
- Stock splits
- New equity or debt offerings
- Significant litigation exposure due to actual or threatened litigation
- Changes in senior management or the Board of Directors of the Company
- Capital investment plans
- Changes in dividend policy

#### CERTAIN EXCEPTIONS

For purposes of this Policy:

**1. Stock Options Exercises.** For purposes of this Policy, the Company considers that the exercise of stock options under the Company's stock option plans (but **not** the sale of the underlying stock) to be exempt from this Policy. This Policy does apply, however, to any sale of stock as part of a broker-assisted "cashless" exercise of an option, or any market sale for the purpose of generating the cash needed to pay the exercise price of an option.

**2. 401(k) Plan.** This Policy does not apply to purchases of Company stock in the Company's 401(k) plan resulting from periodic contributions of money to the plan pursuant to payroll deduction elections. This Policy does apply, however, to certain elections that may be made under the 401(k) plan, including (a) an election to increase or decrease the percentage of periodic contributions that will be allocated to the Company stock fund, if any, (b) an election to make an intra-plan transfer of an existing account balance into or out of the Company stock fund, (c) an election to borrow money against a 401(k) plan account if the loan will result in a liquidation of some or all of a participant's Company stock fund balance and (d) an election to pre-pay a plan loan if the pre-payment will result in allocation of loan proceeds to the Company stock fund.

**3. Employee Stock Purchase Plan.** This Policy does not apply to purchases of Company stock in the Company's employee stock purchase plan, if any, resulting from periodic contributions of money to the plan pursuant to the elections made at the time of enrollment in the plan. This Policy also does not apply to purchases of Company stock resulting from lump sum contributions to the plan, provided that the participant elected to participate by lump-sum payment at the beginning of the applicable enrollment period. This Policy does apply to a participant's election to participate in or increase his or her participation in the plan, and to a participant's sales of Company stock purchased pursuant to the plan.

**4. Dividend Reinvestment Plan.** This Policy does not apply to purchases of Company stock under the Company's dividend reinvestment plan, if any, resulting from reinvestment of dividends paid on Company securities. This Policy does apply, however, to voluntary purchases of Company stock that result from additional contributions a participant chooses to make to the plan, and to a participant's election to participate in the plan or increase his level of participation in the plan. This Policy also applies to his or her sale of any Company stock purchased pursuant to the plan.

**5. General Exceptions.** Any exceptions to this Policy other than as set forth above may only be made by advance written approval of each of: (i) the Company's President or Chief Executive Officer, (ii) the Company's Insider Trading Compliance Officer and (iii) the Chairman of the Governance and Nominating Committee of the Board. Any such exceptions shall be immediately reported to the remaining members of the Board.

## STATEMENT OF POLICY

### General Policy

It is the policy of the Company to prohibit the unauthorized disclosure of any nonpublic information acquired in the workplace and the misuse of Material Nonpublic Information in securities trading related to the Company or any other company.

### Specific Policies

**1. Trading on Material Nonpublic Information.** With certain exceptions, no Covered Person shall engage in any transaction involving a purchase or sale of the Company's or any other company's securities, including any offer to purchase or offer to sell, during any period commencing with the date that he or she possesses Material Nonpublic Information concerning the Company, and ending at the close of business on the second Trading Day following the date of public disclosure of that information, or at such time as such nonpublic information is no longer material (as determined by the Insider Trading Compliance Officer). However, see Section 2 under "**Permitted Trading Period**" below for a full discussion of trading pursuant to a pre-established plan or by delegation.

As used herein, the term "**Trading Day**" shall mean a day on which national stock exchanges are open for trading.

**2. Tipping.** No Covered Person shall disclose (“tip”) Material Nonpublic Information to any other person (including family members) where such information may be used by such person to his or her profit by trading in the securities of companies to which such information relates, nor shall such Covered Person make recommendations or express opinions on the basis of Material Nonpublic Information as to trading in the Company’s securities.

Regulation FD (Fair Disclosure) is an issuer disclosure rule implemented by the SEC that addresses selective disclosure of Material Nonpublic Information. The regulation provides that when the Company, or person acting on its behalf, discloses material nonpublic information to certain enumerated persons (in general, securities market professionals and holders of the Company’s securities who may well trade on the basis of the information), it must make public disclosure of that information. The timing of the required public disclosure depends on whether the selective disclosure was intentional or unintentional; for an intentional selective disclosure, the Company must make public disclosures simultaneously; for a non-intentional disclosure the Company must make public disclosure promptly. Under the regulation, the required public disclosure may be made by filing or furnishing a Form 8-K, or by another method or combination of methods that is reasonably designed to effect broad, non-exclusionary distribution of the information to the public.

It is the policy of the Company that all public communications of the Company (including, without limitation, communications with the press, other public statements, statements made via the Internet or social media outlets, or communications with any regulatory authority) be handled **only** through the Company’s President and/or Chief Executive Officer (collectively, the “CEO”), an authorized designee of the CEO or the Company’s public or investor relations firm. Please refer all press, analyst or similar requests for information to the CEO and do not respond to any inquiries without prior authorization from the CEO. If the CEO is unavailable, the Company’s Chief Financial Officer (or the authorized designee of such officer) will fill this role.

**3. Confidentiality of Nonpublic Information.** Nonpublic information relating to the Company is the property of the Company and the unauthorized disclosure of such information (including, without limitation, via email or by posting on Internet message boards, blogs or social media) is strictly forbidden.

**4. Duty to Report Inappropriate and Irregular Conduct.** All employees, and particularly managers and/or supervisors, have a responsibility for maintaining financial integrity within the company, consistent with generally accepted accounting principles and both federal and state securities laws. Any employee who becomes aware of any incidents involving financial or accounting manipulation or irregularities, whether by witnessing the incident or being told of it, must report it to their immediate supervisor and to any member of the Company’s Audit Committee. In certain instances, employees are allowed to participate in federal or state proceedings. For a more complete understanding of this issue, employees should consult their employee manual and/or seek the advice from their direct report or the Company’s principal executive officers (who may, in turn, seek input from the Company’s outside legal counsel).

#### **POTENTIAL CRIMINAL AND CIVIL LIABILITY AND/OR DISCIPLINARY ACTION**

**1. Liability for Insider Trading.** Covered Persons may be subject to penalties of up to \$5,000,000 for individuals (and \$25,000,000 for a business entity) and up to twenty (20) years in prison for engaging in transactions in the Company’s securities at a time when they possess Material Nonpublic Information regarding the Company. In addition, the SEC has the authority to seek a civil monetary penalty of up to three times the amount of profit gained or loss avoided by illegal insider trading. “Profit gained” or “loss avoided” generally means the difference between the purchase or sale price of the Company’s stock and its value as measured by the trading price of the stock a reasonable period after public dissemination of the nonpublic information.

**2. Liability for Tipping.** Covered Persons may also be liable for improper transactions by any person (commonly referred to as a “tippee”) to whom they have disclosed Material Nonpublic Information regarding the Company or to whom they have made recommendations or expressed opinions on the basis of such information as to trading in the Company’s securities. The SEC has imposed large penalties even when the disclosing person did not profit from the trading. The SEC, the stock exchanges and the National Association of Securities Dealers, Inc. use sophisticated electronic surveillance techniques to monitor and uncover insider trading.

**3. Possible Disciplinary Actions.** Individuals subject to the Policy who violate this Policy shall also be subject to disciplinary action by the Company, which may include suspension, forfeiture of perquisites, ineligibility for future participation in the Company’s equity incentive plans and/or termination of employment.

## PERMITTED TRADING PERIOD

**1. Restricted Insider Black-Out Period and Trading Window; No Trading While In Possession of Material Nonpublic Information Generally.** To ensure compliance with this Policy and applicable federal and state securities laws, the Company requires that all Restricted Insiders refrain from conducting any transactions involving the purchase or sale of the Company’s securities, other than during the period in any fiscal quarter commencing at the close of business on the second Trading Day following the date of public disclosure of the financial results for the prior fiscal quarter or year and ending on the fifth day prior to the end of the fiscal quarter (the “Trading Window”). If such public disclosure occurs on a Trading Day before the markets close, then such date of disclosure shall be considered the first Trading Day following such public disclosure.

It is the Company’s policy that the period when the Trading Window is “closed” is a particularly sensitive periods of time for transactions in the Company’s securities from the perspective of compliance with applicable securities laws. This is because Restricted Insiders, as any quarter progresses, are increasingly likely to possess Material Nonpublic Information about the expected financial or operational results for the quarter. The purpose of the Trading Window is to avoid any unlawful or improper transactions or the appearance of any such transactions.

It should be noted that even during an open Trading Window, any Covered Person possessing Material Nonpublic Information concerning the Company shall not engage in any transactions in the Company’s (or any other companies, as applicable) securities until such information has been known publicly for at least two Trading Days. The Company has adopted the policy of delaying trading for “at least two Trading Days” because the securities laws require that the public be informed effectively of previously undisclosed material information before Covered Persons possessing such information trade in the Company’s stock. Public disclosure may occur through a widely disseminated press release or through filings, such as Forms 10-Q and 8-K, with the SEC. Furthermore, in order for the public to be effectively informed, the public must be given time to evaluate the information disclosed by the Company. Although the amount of time necessary for the public to evaluate the information may vary depending on the complexity of the information, generally two Trading Days is a sufficient period of time.

In addition, from time to time, the Company may also require that certain specific or all Covered Persons suspend trading because of developments known to the Company and not yet disclosed to the public. In such event, following notice of such required suspension from the Insider Trading Compliance Officer to the applicable Covered Persons, such Covered Persons may not engage in any transaction involving the purchase or sale of the Company's securities during such period and may not disclose to others the fact of such suspension of trading. The Insider Trading Compliance Officer shall inform the applicable Covered Persons when such suspension is no longer required.

Although the Company may from time to time require during a Trading Window that Restricted Insiders and Covered Persons suspend trading because of developments known to the Company and not yet disclosed to the public, *each person is individually responsible at all times for compliance with the prohibitions against insider trading. Trading in the Company's securities during the Trading Window should not be considered a "safe harbor," and all directors, officers and other persons should use good judgment at all times.*

Notwithstanding these general rules, Covered Persons may trade outside of the Trading Window provided that such trades are made pursuant to a legally compliant, pre-established plan or by delegation established at a time that the Covered Person is not in possession of material nonpublic information. These alternatives are discussed in the next section.

## **2. Trading According to a Pre-established Plan (10b5-1) or by Delegation.**

The SEC has adopted Rule 10b5-1 (which was amended in December 2022) under which insider trading liability can be avoided if a Covered Person follows very specific procedures. In general, such procedures involve trading according to pre-established instructions, plans or programs (a "**10b5-1 Plan**") after a required "cooling off" period described below.

### **10b5-1 Plans must:**

**(a) Be documented by a contract, written plan, or formal instruction which provides that the trade take place in the future.** For example, a Covered Person can contract to sell his or her shares on a specific date, or simply delegate such decisions to an investment manager, 401(k) plan administrator or similar third party. This documentation must be provided in advance of implementation of the 10b5-1 Plan to the Company's Insider Trading Compliance Officer;

**(b) Include in its documentation the specific amount, price and timing of the trade, or the formula for determining the amount, price and timing.** For example, the Covered Person can buy or sell shares in a specific amount and on a specific date each month, or according to a pre-established percentage (of the Covered Person's salary, for example) each time that the share price falls or rises to pre-established levels. In the case where trading decisions have been delegated (i.e., to a third party broker or money manager), the specific amount, price and timing need not be provided;



**(c) Be implemented at a time when the Covered Person does not possess material non-public information.** For Restricted Insiders in particular, as a practical matter, this means that Restricted Insiders may set up 10b5-1 Plans, or delegate trading discretion, only during a “Trading Window” (discussed in Section 1, above), assuming the Restricted Insider is not in possession of material non-public information;

**(d) Remain beyond the scope of the Covered Person’s influence after implementation.** In general, the Covered Person must allow the 10b5-1 Plan to be executed without changes to the accompanying instructions, and the Covered Person cannot later execute a hedge transaction that modifies the effect of the 10b5-1 Plan. Covered Persons should be aware that the termination or modification of a 10b5-1 Plan after trades have been undertaken under such plan could negate the 10b5-1 affirmative defense afforded by such program for all such prior trades. As such, termination or modification of a 10b-5 Plan should only be undertaken in consultation with your legal counsel. If the Covered Person has delegated decision-making authority to a third party, the Covered Person cannot subsequently influence the third party in any way and such third party must not possess material non-public information at the time of any of the trades;

**(e) Be subject to a “cooling off” period.** Effective February 27, 2023, Rule 10b5-1 contains “cooling-off period” for Restricted Insiders that prohibit such insiders from trading in a 10b5-1 Plan until the later of (i) 90 days following the plan’s adoption or modification or (ii) two business days following the Company’s disclosure (via a report filed with the SEC) of its financial results for the fiscal quarter in which the plan was adopted or modified. For all other Cover Persons, the cooling-off period is 30 days; and

**(f) Contain Restricted Insider certifications.** Effective February 27, 2023, Restricted Insiders are required to include a certification in their 10b5-1 Plans to certify that at the time the plan is adopted or modified: (i) they are not aware of Material Nonpublic Information about the Company or its securities and (ii) they are adopting the 10b5-1 Plan in good faith and not as part of a plan or scheme to evade the anti-fraud provisions of the Exchange Act.

**Important:** In addition, effective February 27, 2023: (i) all Covered Persons are prohibited from having multiple overlapping 10b5-1 Plans or more than one plan in any given year, (ii) a modification relating to amount, price and timing of trades under a 10b5-1 Plan is deemed a plan termination which requires a new applicable cooling off period, and (iii) whether a particular trade is undertaken pursuant to a 10b5-1 Plan will need to be disclosed (by checkoff box) on the applicable Forms 4 or 5 of the Restricted Insider.

**10b5-1 Plan Pre-Approval Required; Notice of 10b5-1 Plan Termination:** Prior to implementing a 10b5-1 Plan, all Restricted Insiders must receive the approval for such plan from (and provide the details of the plan to) the Company’s Insider Trading Compliance Officer. Restricted Insiders shall also promptly inform the Insider Trading Compliance Officer if such person terminates a 10b5-1 Plan. This is due, in part, to the fact that the Company is required to disclose in its public filings information regarding 10b5-1 Plans adopted or terminated by Restricted Insiders.

**3. Pre-Clearance of Trades.** Even during an open Trading Window, all Covered Persons, must comply with the Company's "pre-clearance" process prior to trading in the Company's securities, implementing a pre-established plan for trading, or delegating decision-making authority over the Covered Person's trades. To do so, each Covered Person must contact the Company's Insider Trading Compliance Officer prior to initiating any of these actions. The Company may also find it necessary, from time to time, to require compliance with the pre-clearance process from others who may be in possession of Material Nonpublic Information.

**4. Individual Responsibility.** Every person subject to this Policy has the individual responsibility to comply with this Policy against insider trading, regardless of whether the Company has established a Trading Window applicable to that Restricted Insider or any other Covered Person. Each individual, and not necessarily the Company, is responsible for his or her own actions and will be individually responsible for the consequences of their actions. Therefore, appropriate judgment, diligence and caution should be exercised in connection with any trade in the Company's securities. A Covered Person may, from time to time, have to forego a proposed transaction in the Company's securities even if he or she planned to make the transaction before learning of the Material Nonpublic Information and even though the Covered Person believes he or she may suffer an economic loss or forego anticipated profit by waiting.

#### **APPLICABILITY OF POLICY TO INSIDE INFORMATION REGARDING OTHER COMPANIES**

This Policy and the guidelines described herein also apply to Material Nonpublic Information relating to other companies, including the Company's customers, vendors or suppliers ("**business partners**"), when that information is obtained in the course of employment with, or other services performed on behalf of the Company. Civil and criminal penalties, as well as termination of employment, may result from trading on Material Nonpublic Information regarding the Company's business partners. All Covered Persons should treat Material Nonpublic Information about the Company's business partners with the same care as is required with respect to information relating directly to the Company.

#### **PROHIBITION AGAINST BUYING AND SELLING COMPANY COMMON STOCK WITHIN A SIX-MONTH PERIOD Directors, Officers and 10% Shareholders**

Purchases and sales (or sales and purchases) of Company common stock occurring within any six-month period in which a mathematical profit is realized result in illegal "short-swing profits." The prohibition against short-swing profits is found in Section 16 of the Exchange Act. Section 16 was drafted as a rather arbitrary prohibition against profitable "insider trading" in a company's securities within any six-month period regardless of the presence or absence of material nonpublic information that may affect the market price of those securities. Each executive officer, director and 10% shareholder of the Company is subject to the prohibition against short-swing profits under Section 16. Such persons are required to file Forms 3, 4 and 5 reports reporting his or her initial ownership of the Company's common stock and any subsequent changes in such ownership. The Sarbanes-Oxley Act of 2002 requires executive officers and directors who must report transactions on Form 4 to do so by the end of the second business day following the transaction date, and amendments to Form 4 adopted effective February 2023 require the reporting person to check on the form if the purchase or sale was undertaken pursuant to a 10b5-1 Plan. Profit realized, for the purposes of Section 16, is calculated generally to provide maximum recovery by the Company. The measure of damages is the profit computed from any purchase and sale or any sale and purchase within the short-swing (i.e., six-month) period, without regard to any setoffs for losses, any first-in or first-out rules, or the identity of the shares of common stock. This approach sometimes has been called the "lowest price in, highest price out" rule.

*The rules on recovery of short-swing profits are absolute and do not depend on whether a person has Material Nonpublic Information.* In order to avoid trading activity that could inadvertently trigger a short-swing profit, it is the Company's policy that no executive officer, director and 10% shareholder of the Company who has a 10b5-1 Plan in place may engage in voluntary purchases or sales of Company securities outside of and while such 10b5-1 Plan remains in place.

#### **INQUIRIES**

Please direct your questions as to any of the matters discussed in this Policy to the Company's Insider Trading Compliance Officer.

**Exhibit B**

**NANO NUCLEAR ENERGY INC.**

**INSIDER TRADING COMPLIANCE PROGRAM - PRE-CLEARANCE CHECKLIST**

**Individual Proposing to Trade:**

**Number of Shares covered by Proposed Trade:**

**Date:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Material Non-Public Information Concerns.** Confirm that (i) the individual has been reminded that trading is prohibited when in possession of any material information regarding the Company that has not been adequately disclosed to the public, and (ii) the Insider Trading Compliance Officer has discussed with the individual any information known to the individual or the Insider Trading Compliance Officer which might be considered material, so that the individual has made an informed judgment as to the presence of inside information.
  
- Trading Window.** In the case of Restricted Insiders, confirm that the trade will be made during the Company's open "trading window."
  
- Section 16 Compliance.** Confirm, if the individual is a Restricted Insider, that the proposed trade will not give rise to any potential liability under Section 16 as a result of matched past (or intended future) transactions. Also, ensure that a Form 4 has been or will be completed and will be timely filed.
  
- Prohibited Trades.** Confirm, if the individual is a Restricted Insider, that the proposed transaction is not a "short sale," put, call or other prohibited or strongly discouraged transaction.
  
- Rule 144 Compliance (as applicable).** Confirm that:
  - Current public information requirement has been met;
  - Shares are not restricted or, if restricted, the one year holding period has been met;
  - Volume limitations are not exceeded (confirm that the individual is not part of an aggregated group);
  - The manner of sale requirements have been met; and
  - The Notice of Form 144 Sale has been completed and filed.
  
- Rule 10b5-1 Matters.** Confirm whether the individual has implemented, or proposes to implement, a pre-arranged trading plan under Rule 10b5-1. If so, obtain details of the plan.

\_\_\_\_\_  
Signature of Insider Trading Compliance Officer

**INSIDER TRADING POLICY (NANO)**

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**CERTIFICATION PURSUANT TO RULE 13a-14(a) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

I, James Walker, hereby certify that:

1. I have reviewed this annual report on Form 10-K of Nano Nuclear Energy Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth 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.

December 30, 2024

*/s/ James Walker*

Name: James Walker  
Title: Chief Executive Officer  
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

I, Jaisun Garcha, hereby certify that:

1. I have reviewed this annual report on Form 10-K of Nano Nuclear Energy Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth 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.

December 30, 2024

*/s/ Jaisun Garcha*

Name: Jaisun Garcha

Title: Chief Financial Officer

(Principal Financial Officer)

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**CERTIFICATION PURSUANT TO  
18 U.S.C. §1350  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report of Nano Nuclear Energy Inc. (the “Company”) on Form 10-K for the fiscal year ended September 30, 2024, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), James Walker, as Chief Executive Officer and principal executive officer of the Company hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of the undersigned’s knowledge and belief, that:

1. the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

*/s/ James Walker*

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James Walker

Chief Executive Officer and Principal Executive Officer

Dated: December 30, 2024

This certification accompanies this Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

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**CERTIFICATION PURSUANT TO  
18 U.S.C. §1350  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report of Nano Nuclear Energy Inc. (the “Company”) on Form 10-K for the fiscal year ended September 30, 2024, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Jaisun Garcha, as Chief Financial Officer and principal financial officer of the Company hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of the undersigned’s knowledge and belief, that:

1. the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

*/s/ Jaisun Garcha*

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Jaisun Garcha

Chief Financial Officer and Principal Financial Officer

Dated: December 30, 2024

This certification accompanies this Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

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