

**8,490,767 Shares of Common Stock**

This prospectus relates to the resale by the selling stockholders named herein, including their transferees, assigns, pledgees or donees, or their respective successors, of up to 8,490,767 shares (the "Shares") of our common stock, par value \$0.0001 per share (which we refer to as our common stock). The selling stockholders listed herein were the investors in a private placement by our company which closed on October 10, 2025. For information about the selling stockholders, see "Selling Stockholders."

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of common stock by the selling stockholders. The selling stockholders may sell the Shares to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling stockholders, the purchasers of the Shares, or both. We are registering the offer and sale of the Shares pursuant to certain registration rights granted to the selling stockholders. The timing and amount of any sale of Shares is within the sole discretion of the selling stockholders. We do not know when, or in what amount, the selling stockholders may offer the Shares for sale. We have paid the expenses of registering the Shares, including legal and accounting fees. All selling and other expenses incurred by the selling stockholders will be borne by the selling stockholders. See "Plan of Distribution" for additional information.

Our common stock is listed on The Nasdaq Capital Market under the symbol "NNE." On March 6, 2026, the last reported sale price of our common stock on The Nasdaq Capital Market was \$23.54 per share.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required.

An investment in the securities offered through this prospectus is speculative and involves a high degree of risk. You should carefully consider the risk factors beginning on page 23 of this prospectus and the risk factors in our most recent Annual Report on Form 10-K, which is incorporated by reference herein, as well as the risk factors in our other recently filed quarterly and current reports incorporated by reference herein, and in the relevant prospectus supplements. We urge you to carefully read this prospectus and any documents incorporated by reference in this prospectus or any prospectus amendments or supplements before investing.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is March 13, 2026.

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ABOUT THIS PROSPECTUS

The information contained in this prospectus is not complete and may be changed. You should rely only on the information provided in or incorporated by reference in this prospectus, in any prospectus supplement or in a related free writing prospectus, or documents to which we otherwise refer you. We have not authorized anyone else to provide you with different information.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement or any related free writing prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement or any related free writing prospectus. This prospectus and any accompanying prospectus supplement and any related free writing prospectus, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and any accompanying prospectus supplement and any related free writing prospectus, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and any accompanying prospectus supplement and any related free writing prospectus, if any, is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement and any related free writing prospectus is delivered or securities are sold on a later date.

We have not done anything that would permit this offering or possession or distribution of this prospectus or any free writing prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourself about and to observe any restrictions relating as to this offering and the distribution of this prospectus and any such free writing prospectus outside the United States.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The information in this prospectus, any applicable prospectus supplement and any related free writing prospectuses, together with any information incorporated by reference in this prospectus and such prospectus supplement, contains “forward-looking statements” within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. All statements other than statements of historical fact, including statements regarding our future operating results and financial position, our business strategy and plans, market growth, and our objectives for future operations, are forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

You can identify some of these forward-looking statements by words or phrases such as “may,” “will,” “could,” “would,” “expect,” “anticipate,” “aim,” “estimate,” “intend,” “plan,” “believe,” “is/are likely to,” “potential,” “project,” “target,” “continue” or the negative of these terms or other similar expressions, although not all forward-looking statements may contain these words. Forward-looking statements are only predictions and are based largely on our current expectations and projections about future events and financial trends that we reasonably believe may affect our business, financial condition and results of operations. Although we believe that the expectations reflected in our forward-looking statements are reasonable, actual outcomes could differ materially from those projected or assumed in any of our forward-looking statements. Our future business, financial condition and results of operations, as well as any forward-looking statements, are subject to change given the inherent risks and uncertainties of market and industry conditions.

Forward-looking statements are neither predictions nor guarantees of future outcomes. Forward-looking statements present estimates and assumptions only as of the date on the cover of the document in which they are contained, and are subject to significant 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 outcomes to differ materially from those in the forward-looking statements include, but are not limited to, those summarized below:

- Our ability to design, develop, manufacture, demonstrate, obtain regulatory approval for and ultimately sell our proposed nuclear reactors or other products, technologies or services we are developing.
- Our ability to source or internally develop the necessary fuel and material supply chain to power our next generation of advanced nuclear reactors.
- Our ability to source or internally develop the required transportation capabilities to move our reactors, their fuel, and other special materials critical to the commercial deployment of our reactor systems.
- Our ability to build internally, and to externally 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.
- The ability of key third party collaborators including, without limitation, The University of Illinois Urbana-Champaign, to perform their obligations to us and meet goals and timelines as expected.
- Assumptions relating to the size of the market for our nuclear reactors or other products, technologies or services we are developing.
- Our ability to navigate the complex and time-consuming nuclear regulatory regimes in the jurisdictions we operate, including unanticipated regulations or regulatory failures that could add barriers, time and cost to our business plans.
- Our estimates of future expenses, capital requirements, revenue potential and our needs for, or ability to obtain, additional financing.
- Our status as a pre-revenue company in a rapidly evolving, complex and highly competitive industry with a business model that is still being developed and is largely untested.
- Our ability to avoid a significant disruption in our information technology system, including security breaches, or our ability to implement new system and software successfully.
- Our ability to obtain and maintain intellectual property protection for our products.
- The other forward-looking statements regarding our company and its prospects included or incorporated by reference in this prospectus 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. Forward-looking statements necessarily involve risks and uncertainties, and our actual results could differ materially from those anticipated in the forward-looking statements due to a number of factors, including those set forth under “Risk Factors” and elsewhere contained or incorporated by reference in this prospectus. All written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained above and throughout this prospectus. Prior to investing in our common stock, you should read this prospectus, our filings incorporated by reference herein and the documents we have filed as exhibits to this registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we currently expect.

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

INDUSTRY AND MARKET DATA

Unless otherwise indicated, data concerning economic conditions, our industry, our markets and our competitive position are based on a variety of sources, including information from third-party industry analysts, publications, surveys and forecasts and our own estimates and research. These data involve a number of assumptions, estimates and limitations. Industry publications, surveys and forecasts and other public information generally indicate or suggest that their information has been obtained from sources believed to be reliable. None of the third-party industry data used in this prospectus were prepared on our behalf. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors”. These and other factors could cause results to differ materially from those expressed in these data.

TRADEMARKS

We own or have rights to trademarks or trade names that we use in connection with the operation of our businesses, our corporate names, logos and websites. We may make references to our trademarks and service marks, and to those belonging to other entities. Solely for convenience, trademarks and trade names referred to may appear without ® or TM or similar symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent possible under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies’ trade names, trademarks, or service marks to imply a relationship with, or an endorsement or sponsorship of us by, any other companies. All other trademarks and service marks are the property of their respective owners.

PROSPECTUS SUMMARY

This summary highlights certain information appearing elsewhere or incorporated by reference in this prospectus. Because it is only a summary, it does not contain all of the information that you should consider before investing in the shares offered hereby and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere or incorporated by reference in this prospectus. This summary contains forward-looking statements that involve risks and uncertainties, such as statements about our plans, objectives, expectations, assumptions, or future events. These statements involve estimates, assumptions, known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from any future results, performances or achievements expressed or implied by the forward-looking statements. See “Cautionary Note Regarding Forward-Looking Statements” before you decide to invest in our common stock, you should also read the entire prospectus carefully, including “Risk Factors” beginning on page 23, “Summary of Consolidated Financial Information” beginning on page 15, and the financial statements and related notes included or incorporated by reference in this prospectus.

Unless the context indicates otherwise, as used in this prospectus, the terms “we,” “us,” “our,” “our company,” “Nano Nuclear” and “our business” refer to Nano Nuclear Energy Inc. and its consolidated subsidiaries.

Overview

We are a nuclear energy and technology company, developing smaller, simpler, and safer advanced 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 comprehensive engagement across every sector of the nuclear power and energy industry, traversing the path from sourcing raw materials through to developing cutting edge advanced nuclear microreactors. Our dedication extends further, encompassing ambitions within the commercial nuclear fuel transportation sector, the nuclear energy fuel supply chain, technology development, and nuclear consulting services.

We are currently in the pre-revenue stage, and we have not generated any material revenues from our inception through December 31, 2025. For the three months ended December 31, 2025 and the years ended September 30, 2025 and 2024, our net loss was approximately \$6.5 million, \$40.1 million and \$10.2 million, respectively, and our accumulated deficit was approximately \$64.0 million, \$57.5 million and \$17.4 million, respectively.

While we are a relatively young company, having been formed in 2022, as of the date of this prospectus, we had 45 full-time employees and 18 independent contractors with an aggregate of 108 advanced degrees, including 33 master’s degrees in engineering, science, business, taxation and philosophy, 12 PhDs and two JDs (Juris Doctors - Doctor of Law). We have expanded our human capital resources extensively over the last two years, and while we expect to continue to grow the number of our employees and contractors as our business needs dictate, we believe that our existing personnel have the capacity to conduct our various current workstreams described below and to pursue the launch of our proposed business lines in parallel. We are also leveraging the expertise and experience of various third-party contracting firms who are supplementing our existing human capital resources by providing specialized services in several areas, including design engineering, procurement and construction management, enabling us to advance several initiatives concurrently.

Readers should note that in this prospectus and the documents incorporated herein by reference, we provide our current estimated timelines for advancing and commercially launching our business lines, including key assumptions and variables. Based on our management’s experience, expertise and communications with applicable regulators and other stakeholders (such as third-party contractors), we believe we have a sufficient basis to provide reasonable timing estimates for our efforts, and our expectation is that we will meet such timing for our proposed business lines. However, readers are cautioned that our business plans are evolving and remain subject to the completion of ongoing technical, regulatory, and operational preparations, which are inherently uncertain and risky given the nature of our business and may be affected by factors beyond our control. Accordingly, no assurances can be given that we will be able to progress and commercially launch our several business lines as currently anticipated, or that such progress or commercial launches will occur in the timeframes we anticipate, if at all. For further information, please see the “Cautionary Note Regarding Forward-Looking Statements” and “Risk Factors” section of this prospectus and in the documents incorporated herein by reference, most notably our Annual Report (as defined below) on Form 10-K for the year ended September 30, 2025, which was filed on December 18, 2025, and our Quarterly Report (as defined below) on Form 10-Q for the three months ended December 31, 2025, which was filed on February 17, 2026.

Our Microreactor and Other Nuclear Technology Business Lines

We are principally focused on the following four business lines as part of our development strategy:

- **Nuclear Reactor Business.** We are developing the next generation of advanced nuclear microreactors, with our principal focus centered on our **KRONOS MMR™ Energy System**. This high technology readiness level (or TRL), high-temperature gas-cooled reactor (or HTGR), Tristructural-Isotropic (or TRISO) fueled reactor is designed for both small- and large-scale operations, optimizing between size and output to allow for modularity and easier mass manufacturing, and efficient scalable energy generation.

Our portfolio of reactors also includes the **LOKI MMR™ reactor**, a portable nuclear reactor designed for versatility in application and deployment which is also a HTGR utilizing TRISO fuel, and **ZEUS™ reactor**, a portable modular solid core battery reactor. 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 these products in the 2030s, and we are aiming to commercially launch the KRONOS MMR™ Energy System first in the early 2030s as we are currently dedicating the most time and resources to such product. We also own the rights to the **ODIN™ reactor**, a portable modular low pressure coolant reactor, which we are currently in the process of selling as described below.

January 2025 Acquisition of KRONOS and LOKI Assets

On December 18, 2024, the United States Bankruptcy Court for the District of Delaware (“Bankruptcy Court”) overseeing the bankruptcy of Ultra Safe Nuclear Corporation and its debtor subsidiaries (together, “USNC”) approved the sale by USNC to our company of certain assets related to the KRONOS MMR™ Energy System and the LOKI MMR™ Energy System (the “USNC Assets”), which approval included our right to purchase the Consent Assets (as defined below) and our assigned right to purchase the Consent Assets. We do not believe that USNC’s bankruptcy was attributable to any broader challenges facing participants in the advanced nuclear technology industry, including our company. Rather, we believe that USNC’s bankruptcy arose primarily from issues related specifically to USNC and its business, notably the termination of USNC’s primary source of funding, which led to liquidity shortfall and the rapid accrual of outstanding obligations, resulting ultimately in the commencement of bankruptcy proceedings.

On January 10, 2025, we closed our acquisition of the USNC Assets (but excluding the Consent Assets as described below) from USNC (“USNC Closing”). All other components of the USNC Assets, other than the Consent Assets, were acquired by us on January 10, 2025. We acquired the USNC Assets free and clear of any liens other than certain specified liabilities of USNC that were assumed, for a total purchase price of \$8.5 million in cash through an auction conducted pursuant to Section 363 of the U.S. Bankruptcy Code in connection with USNC’s pending Chapter 11 bankruptcy proceedings. We consider this purchase price to be advantageous for us as we believe based on publicly available information that USNC raised over \$120 million for the development of the KRONOS MMR™ Energy System and that a major data center operator had conducted due diligence on the project while it was being developed by USNC.

The USNC Assets included (i) five contracts with third-party collaborators, (ii) 38 issued, pending or published patents, 16 registered, pending or published trademarks, and any other technology and intellectual property related to the acquired assets, (iii) rights related to a demonstration project related to the KRONOS MMR™ Energy System in the United States, (iv) the business records of the USNC Assets and related rights, and (v) certain Canadian assets relating to both the KRONOS MMR™ Energy System and certain Canadian intellectual property rights relating to the LOKI MMR™ (the “Canadian Assets”). The Canadian Assets included, among other assets, the right to receive: (i) three contracts with Canadian authorities relating to the KRONOS MMR™ reactor demonstration project at Chalk River Laboratories located in Ontario, Canada (the “Chalk River Project”), (ii) the equity interests of a Canadian partnership (the “Canadian Partnership”) that was believed at the time to hold a license application (the “Chalk River License Application”) with the Canadian Nuclear Safety Commission (“CNSC”) associated with the Chalk River Project, and (iii) rights related to the Chalk River Project held by the Canadian Partnership (collectively, the “Consent Assets”), subject to the receipt of the consent of certain Canadian governmental entities, including the CNSC (the “Canadian Consents”). The Consent Assets were, however, excluded from the USNC Closing due to the requirement of Canadian Consents and, accordingly, were retained by USNC subject to receipt of the Canadian Consents. We established an escrow of \$250,000 deposited with Western Alliance Bank at the closing securing the Canadian Consents, and said escrow amount was funded at the closing of the USNC Assets. If the Canadian Consents were not received within 90 days after the closing, we had the right to terminate the acquisition of the Consent Assets and receive the return of \$250,000 held in escrow and forfeit our rights to the Consent Assets. Our right to acquire the Consent Assets was assigned to the Yu Entities as described below, but subject to our option arrangement with the Yu Entities as described below. In mid-December 2025, given our subsequent acquisition of Chalk River License Application directly through our acquisition of GFPL, we believe the Consent Assets were not material and given that the Canadian Consents were not obtained as contemplated by our agreement with USNC, each as described further below, we formally requested a return of the \$250,000 escrow amount and abandoned our right to acquire the Consent Assets as they are not necessary for our business plan.

We were first made aware of the bankruptcy sale opportunity for the USNC Assets a few weeks before the bankruptcy auction was scheduled to take place. As such, the process of bidding for and documenting the purchase was very expedited and provided us with only a limited ability to conduct full due diligence on the USNC Assets, particularly the Canadian Assets. For example, the expedited timing afforded us no opportunity to speak with the CNSC in advance of the USNC Closing in January 2025. Moreover, we were made aware at that time that certain Consent Assets (specifically the Canadian Partnership, which was believed at the time to hold the Chalk River License Application) could potentially be encumbered by liabilities that could not be cleared through USNC's U.S. bankruptcy process, thus creating a risk to us should we assume such liabilities. To enable our ability to continue diligence of the Consent Assets to ensure we acquired the correct assets and did not assume or become exposed to any unknown liabilities, on the closing date of the USNC Asset acquisition, we assigned our rights to acquire the Consent Assets to Jay Jiang Yu, our founder, President, Secretary and Treasurer, and Chairman of the Board, and certain existing Canadian entities owned or controlled by Mr. Yu (the "Yu Entities"). Accordingly, on January 10, 2025, we entered into an option agreement ("Yu Option Agreement") with Mr. Yu and Yu Entities, pursuant to which we received an option back from Mr. Yu and the Yu Entities to acquire for nominal consideration, for a period of five years beginning with the receipt by the Yu Entities of the Consent Assets upon receiving the Canadian Consents, any or all of the equity interests of the Yu Entities or the Canadian Partnership, the other Consent Assets or the material assets and business of the Canadian Partnership. The assignment of the right to acquire the Consent Assets and the Yu Option Agreement were unanimously approved by our disinterested directors. Given the uncertainties regarding the Consent Assets at that time, we believe this option arrangement was the most efficient and cost-effective structure (particularly since the option was exercisable by us for only nominal consideration) for us to close the bankruptcy sale and secure the right to acquire the Consent Assets, subject to obtaining the Canadian Consents, while allowing us to continue our diligence to confirm that there were no significant undisclosed liabilities with respect to the Consent Assets and also preserving our ability to progress the KRONOS project in Canada and facilitate the Canadian Consents.

Acquisition of GFPL and 2025 Progress with Chalk River Project

In the months following the USNC Closing, we sought the Canadian Consents for the Consent Assets (most notably, the Canadian Partnership's rights to the Chalk River License Application), including through initial and subsequent communications with the CNSC. As part of our continuing due diligence, we learned that a USNC subsidiary and debtor in USNC's bankruptcy case called Global First Power Ltd. ("GFPL"), and not the Canadian Partnership, was in fact the holder of the Chalk River License Application. Further, we were informed by the CNSC that the Chalk River License Application could not be transferred and that only GFPL itself could complete the Chalk River License Application and obtain the license for the Chalk River Project or, alternatively, we or our subsidiaries or designees would need to file a new application with the CNSC. Accordingly, we determined that the most efficient course of action for our company to continue the Chalk River Project would be for us to acquire the equity interests of GFPL itself and thereby acquire the Chalk River License Application. As a result, on August 14, 2025, The RPWI Liquidating Trust, a Delaware liquidating trust created pursuant to USNC's plan of liquidation in bankruptcy, GFPL, our company and our subsidiary Kronos MMR Inc. entered into a Purchase Agreement (the "GFPL Purchase Agreement") pursuant to which Kronos MMR agreed to purchase all of the equity interests of GFPL and any other assets of GFPL that are specified in the GFPL Purchase Agreement (including the rights to the Chalk River License Application), free and clear of all liens, claims, encumbrances and other interests. The purchase price for GFPL was our assumption of an approximately \$0.65 million liability, which was the amount owed by GFPL to the CNSC for pre-petition bankruptcy claims, plus any other amounts payable to CNSC for the Chalk River License Application which first arise and relate to, or become due and payable in the ordinary course after the closing of such acquisition, plus a \$15,000 expense reimbursement allowance. On September 2, 2025, the GFPL Purchase Agreement and the transactions contemplated thereby were approved by the Bankruptcy Court, and on October 16, 2025, such transaction was closed. Upon closing of the GFPL transaction, GFPL became our wholly owned subsidiary and thus (based on our discussions with CNSC) we have the right to proceed with the Chalk River License Application through GFPL. As of the date of this prospectus, the Chalk River License Application is still pending approval of the CNSC. We expect to pay the \$0.65 million assumed liability using cash on hand when required as the regulatory process continues. As of the date of this prospectus, we are not aware of any other parties that claim to have ownership of the Chalk River License Application or any other assets we purchased from USNC. Moreover, all assets that we acquired from USNC were acquired in a bankruptcy court approved process, free and clear of any liabilities, liens or encumbrances (other than those expressly assumed as previously disclosed), which provides us with significant assurances of our ownership of the Chalk River License Application and related assets.

As a result of the foregoing, neither the Yu Entities nor our company acquired the Consent Assets, and given our subsequent due diligence and consultations with CNSC during 2025 following our acquisition of the USNC Assets, we have determined that (i) our acquisition of GFPL provides us with all of the rights and assets we require from USNC to progress the Chalk River Project, (ii) the Consent Assets subject to the Yu Option Agreement are immaterial to our plans and need not be acquired, with the result that the Yu Option has never been exercised, and we will not exercise the Yu Option. Accordingly, on March 5, 2026, the Yu Option Agreement was terminated. Moreover, given that the Canadian Consents were not achieved on a timely basis, in mid-December 2025, we made a written request for the return of the \$250,000 escrow amount and abandoned our right to acquire the Consent Assets as they are not necessary for our business plan.

In late October 2025, we announced our rebranding of GFPL to the name **True North Nuclear**.

Our KRONOS MMR™ Reactor and Key Collaboration with The University of Illinois

The KRONOS MMR™ reactor is our lead reactor development project, and we are currently prioritizing this project over our other microreactors in development. It is a stationary reactor design that targets new markets beyond those targeted by our smaller microreactors, which are designed for more remote locations, such as island and remote communities, remote industry such as mining projects or oil and gas. The KRONOS MMR™ reactor will also target larger population centers, larger industrial operations, industrial heat for larger industries, and data and artificial intelligence centers for the tech industry. The KRONOS MMR™ design incorporates negative reactivity feedback, passive heat removal, passive shutdown characteristics, and uses helium — an inert gas — along with TRISO fuel. These features allow the reactor to safely dissipate heat without operator intervention or external power.

On March 29, 2025, we executed a Sponsored Research Agreement Amendment No. 2 with The Board of Trustees of the University of Illinois (referred to for these purposes as “U of I”) that substituted our company as an assignee of the rights and obligations of USNC regarding the sponsored research relationship with The University of Illinois Urbana-Champaign (“UIUC”) for the KRONOS MMR™ project. Under the Sponsored Research Agreement and its amendments (the “UIUC Agreement”), our company, in collaboration with U of I, will construct, obtain regulatory approval for, and deploy a KRONOS MMR™ research and test reactor on the UIUC campus. The UIUC Agreement as entered into with U of I is effective January 1, 2022, and will terminate on February 28, 2027, unless terminated earlier, for convenience by either party by providing 30 days’ advance written notice, for material breach by either party that is uncured within 30 days after providing notice, or immediately upon notice, if (i) the parties cannot agree on an acceptable successor U of I principal investigator for the project (if either of the current U of I principal investigators become unable to perform), (ii) we are declared insolvent, cease (or threaten to cease) to carry on our business, or an administrator or receiver has been appointed over all or part of our assets; (iii) we fail to pay promptly research costs to U of I under a budget not to exceed approximately \$3.4 million; or (iv) either party is debarred or excluded from participating in any government program. Under the UIUC Agreement, each party owns the inventions it develops alone, and any inventions developed together are jointly owned. At our request and expense, U of I will file patent applications in the United States and foreign countries for any U of I or joint inventions. With U of I approval, we may control patent application filing, prosecution, and maintenance. We have also received a non-exclusive, non-transferable royalty-free license to practice each U of I invention for commercial purposes within the field of nuclear energy. In mid-April 2025, we launched a recruitment initiative focused on the Midwest region to support our plans to construct, demonstrate and gain regulatory approval for full-scale KRONOS MMR™ Energy System in both the United States and Canada.

In late April 2025, the U.S. Nuclear Regulatory Commission (“NRC”) issued its final Safety Evaluation (SE) approving the Fuel Qualification Methodology Topical Report (FQM TR) for the advanced fuel design to be used in the KRONOS MMR™ Energy System. The FQM TR is a technical document that defines the analytical framework and testing approach by which irradiation data and fuel performance information will be evaluated to demonstrate that the KRONOS MMR™ fuel meets NRC safety and reliability requirements. Approval of the FQM TR does not in itself authorize construction or operation of the KRONOS MMR™ reactor; rather, it represents NRC approval of the methodology that will be used to qualify the fuel in subsequent testing and licensing steps. Our regulatory activities to date have been conducted within the NRC’s pre-application framework, which has included multiple technical submittals, meetings, and NRC staff feedback towards our technical submittals documented on the NRC’s public pre-application docket for UIUC. Our next steps toward submission of a construction permit application for the KRONOS MMR™ reactor consist of several regulatory and technical workstreams that are being conducted in parallel rather than sequentially. These activities include continued NRC pre-application engagement and technical interactions, completion of site characterization activities and development of site-specific inputs (including collecting and preparing location-specific technical, environmental, and engineering information to support regulatory filings and design work for a particular site), preparation of the environmental report required to support a construction permit application, preparation of preliminary safety analyses and application documentation, and initiation and ongoing execution of the NRC-approved fuel qualification program in accordance with its approved scope and phased development plan. With respect to site-specific work, we engaged AECOM, a multi-disciplinary engineering firm, in June 2025 to support site characterization, engineering, environmental analysis, and regulatory planning activities associated with the proposed reactor site at UIUC. The agreement with AECOM has a term of three (3) years, which will be automatically renewed on an annual basis. These activities include site drilling and collection of geological and environmental data required to support a construction permit application. We currently expect to complete the principal site-specific data collection and analyses necessary for an NRC construction application submittal in early 2026. In parallel, we are preparing the environmental report and preliminary safety analysis materials, which are expected to be completed in early 2026 and are required for a construction permit application for a KRONOS MMR™ research reactor. While the environmental report and safety analysis must be submitted with the application, the NRC’s detailed safety and environmental reviews occur after the application is docketed and may involve requests for additional information, audits, hearings, and public participation as part of the NRC’s review process. Following NRC approval of the FQM TR, we have initiated the fuel qualification program using the NRC-approved methodology. Fuel qualification is a staged and iterative process that includes defining test plans, generating and evaluating fuel performance data, and documenting results. We expect to provide sufficient fuel-related information to support submission of a construction permit application based on the approved methodology, while continuing fuel qualification activities during NRC review and in later licensing stages. However, although fuel qualification is important to our business operations, completion of all fuel qualification activities is not required as a condition for the approval or docketing of a construction permit application. Based on the foregoing parallel workstreams, we currently anticipate submitting a construction permit application for the KRONOS MMR™ reactor in the first half of 2026 and receiving the approval in the middle of 2027, subject to the NRC’s review process. Following submission, the NRC will conduct an acceptance review to determine whether the application is sufficiently complete to docket. NRC guidance indicates that this acceptability determination is generally expected to occur within approximately 60 days; however, timing may vary. After docketing, the duration of the NRC’s safety and environmental reviews is not fixed and is not typically completed within a single year. There can be no assurance as to the timing of completion of such reviews. The duration of the NRC’s review process may vary materially based on numerous factors, including, among other things, the completeness and quality of the application at submission, the number and complexity of NRC requests for additional information, the extent to which the application relies on previously reviewed topical reports, NRC staffing and resource availability, the scope and outcome of any required hearings, and the type and complexity of the environmental review, including whether an environmental impact statement is required. Accordingly, the timing of NRC review and any resulting licensing decisions is inherently uncertain and largely outside the Company’s control and any delays in the review process could materially and adversely affect the Company’s business, financial condition, and results of operations.

The KRONOS MMR™ reactor at UIUC is being developed as a research microreactor intended primarily for demonstration, testing, and research applications, but the reactor will be a full-scale system analogous to the commercial KRONOS MMR™ reactor we are planning to sell and deploy post receipt of a construction permit issued by the NRC, followed by an operating license. The UIUC project will also serve as the reactor which the NRC will be evaluating as part of its licensing process for the entire system. Subject to the NRC review timeline, completion of required safety and environmental reviews, construction activities, and successful commissioning, we expect the KRONOS MMR™ to achieve initial operation or research availability around 2030 to 2031. The KRONOS MMR™ reactor is not expected to be a near-term commercial power product and is intended to support technology demonstration, fuel qualification, and design validation activities applicable to our broader reactor portfolio.

We believe that the diversity of our products in development positions us to capitalize on growing financial investment and societal momentum driving advanced nuclear energy technologies on a global scale across multiple different areas. We will leverage our world-class technical team to analyze and optimize these technologies, key components, and intellectual property, before integrating them into its operational frameworks and ongoing innovative efforts. We also intend to build upon and strengthen the extensive industry relationships that

USNC established during its operations, including those with UIUC and the Canadian Government to build prototype reactors. Once operational in the future, our plan is to be able to sell a majority of the energy produced at the UIUC using the KRONOS MMR™ reactor, with UIUC retaining a portion for its own use.

Our Other Microreactor Projects

LOKI MMR™ is designed as a high-temperature, gas-cooled reactor utilizing TRISO fuel and a closed Brayton-cycle power conversion system, with electrical output scalable from approximately 300 kWe to 1 MWe for terrestrial applications and scalable configurations suitable for space missions. Our LOKI MMR™ reactor directly benefits from the advancement and development of the KRONOS MMR™ reactor, as both share similar technological features. Accordingly, the development timeline of LOKI MMR™ reactor is expected to be analogous to that of KRONOS MMR™ reactor.

The portable LOKI MMR™ reactor will target multiple applications, including remote locations unsuitable for larger reactor systems, such as islands; remote industrial operations, such as mining and oil and gas projects; and extra-terrestrial applications that require consistent power. The commercial deployment of the LOKI MMR™ reactor is expected to depend primarily on demonstrated market demand and customer interest, which may incentivize us to invest in the construction of a prototype or demonstration reactor and to initiate the licensing process with the NRC. As of the date of this prospectus, we are still in the process of assessing and developing demonstration, licensing and commercial launch timelines for this reactor. Our current development plan for LOKI MMR™ includes continued design refinement, component and subsystem testing, and non-nuclear demonstration activities, followed by a potential ground-based demonstration. Based on current planning assumptions and subject to funding availability, regulatory review and/or approval process, technical progress and other relevant factors, we are targeting initial non-nuclear and component-level testing activities in the late 2020s, with the objective of achieving a ground demonstration as early as 2030 or 2031. We derived this timeline using a critical-path planning approach, starting from known near-term licensing and project preparation milestones and then sequencing downstream workstreams that must occur prior to component-level testing and a ground demonstration.

In particular, our current planning includes submission of a Construction Permit Application (“CPA”) to the NRC in the first half of 2026 for the UIUC reactor construction project. From that milestone, we then incorporated estimated durations for:

- NRC acceptance and review processes (including requests for additional information and iterative engagement);
- completion of detailed design and safety analysis sufficient to support procurement and construction;
- procurement and fabrication lead times for specialized components and systems;
- non-nuclear test readiness (including component test campaigns, quality program readiness, and test facility integration); and
- construction, integration, and commissioning preparation steps needed prior to a ground demonstration.

The “late 2020s” and “2030 or 2031” targets described above represent our management’s current estimate of achievable timing if critical path items proceed as planned, but are not intended as a guarantee of completion by those dates. These timelines remain under our review and are dependent on external programmatic decisions. The LOKI MMR™ reactor is not currently expected to be a near-term commercial power product for civilian grid applications. Rather, we view LOKI MMR™ as a specialized system intended for government, defense, space, and remote deployment use cases, with commercialization dependent on successful demonstration, mission-specific regulatory approvals, and customer sponsorship. Any future commercial deployment of the LOKI MMR™ platform would occur only after completion of required testing, demonstration, and regulatory authorization processes, the timing of which remains uncertain and largely outside the Company’s control. We expect to commercially launch the LOKI MMR™ reactor in the 2030s.

Our ZEUS™ and ODIN™ microreactors have moved from the design stages to physical test work stages, with materials testing, irradiation testing, and initial rig construction currently underway, to ensure the accuracy of our modelled reactors and to optimize the dimensions and composition of the systems. We have conducted and completed external design audits on the ZEUS™ and ODIN™ reactor designs to provide external validation for our designs. The design audits for those reactors were conducted and completed by the Idaho National Laboratory (“INL”). Currently, we are actively engaged in the engineering development and design optimization of the ZEUS™ reactor, while undergoing a proposed sale process for ODIN™ technology. The ZEUS™ reactor is being developed as a transportable, solid-core microreactor intended for remote, off-grid, and defense-related applications. We are evaluating the most effective means of tailoring our technology to address specific key markets, particularly military and remote applications that require smaller power outputs, for which we believe the ZEUS™ reactor is suited to supply. Upon the conclusion of these evaluations, we plan to accelerate our development of the ZEUS™ technology, including expanding rig test work and collaborating with identified end users to advance a demonstration reactor for licensing. We have had informal meetings with the NRC, informing them of the status of our ZEUS™ microreactor design 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 and 2025 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 March 2025, we announced that we had assembled the first reactor core hardware of our ZEUS™ microreactor for initial non-nuclear testing. We believe there is potential for our ZEUS™ microreactor to be commercially launched in the 2030s. However, the actual commercialization timing will depend on regulatory requirements applicable to the specific deployment environment, customer site characteristics, and applicable federal, state, or international approvals.

Pending Sale of ODIN™ Reactor Project

Notwithstanding the progress made with ODIN™ technology to date, given our corporate emphasis on the KRONOS MMR™ reactor as our lead project, and the fact that all of our reactor designs, except for the ODIN™ reactor, are within the high-temperature gas-cooled reactor family, we are considering strategic alternatives for ODIN. In September 2025, we signed a letter of intent for the proposed sale of our ODIN™ microreactor design and all associated intellectual property to Cambridge Atom Works, a United Kingdom based advanced reactor developer who is already developing the ODIN™ technology for us on an outsourced consulting basis. This letter of intent called for a total purchase price of \$6.2 million, with a \$250,000 upfront non-refundable down payment to us and a \$5.95 million payment in 2026 as well as future low single-digit royalties payable to us based on net sales if and when ODIN™ technology is commercialized. As of the date of this prospectus, the transaction remains subject to execution of definitive documentation and the satisfaction of customary closing conditions. This sale is intended to monetize our investment in the project to date and enable us to allocate more time and resources to the KRONOS MMR™ reactor and our other designs and technologies.

Additional Developments Regarding Our Microreactors

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 branch (“Nuclear Technology Branch”). Michael Norato, Ph.D., an INL and Department of Energy (“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 14,000 sq. ft. Oak Ridge, Tennessee Nuclear Technology Branch, as well as our future test bed reactor sites for experiments related to our ZEUS™ microreactor 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.

In January 2025, we entered into a lease for a facility in Westchester County, New York where we have established a purpose-built facility to assemble and demonstrate the operation and viability of several non-nuclear parts and components of our nuclear microreactors in development. In February 2025, we engaged aRobotics Company, a leading innovator in robotics fabrication, inspection, engineering and testing, to oversee the multimillion dollar build out of this facility. aRobotics has also assisted us with the fabrication of key components for the facility. We committed approximately \$3 million to retrofit this facility. In May 2025, we announced the completion of our retrofit of our demonstration facility and the commencement of operations there. Our demonstration facility is currently supporting ongoing work on our SBIR Phase III project for our Annular Linear Induction Pump (ALIP) technology, which has been assembled onto a test loop and integrated to a controllable test setup for variable design validation at the facility. ALIP technology is expected to be completed, through the successful completion of SBIR Phase III project, to effectively launch the ALIP in 2026. We expect to complete the physical demonstration work for ALIP in 2026, however, the timeline to commercialization is dependent on market demand and the successful completion of SBIR Phase III project. The market demand will to some extent dictate our production numbers of the pump system and the resources we allocate to the system to support the manufacturing demand.

In July 2025, we announced that we will provide critical engineering and environmental services for our planned construction and deployment activities at the UIUC for our KRONOS MMR™ Energy System. As part of this initiative, we have engaged AECOM, a global infrastructure leader, under a master services agreement to support site-specific engineering, environmental analysis and regulatory planning at UIUC. The agreement lays the groundwork for site-specific engineering in preparation for deploying the first KRONOS MMR™ Energy System at UIUC, a globally recognized hub for nuclear research and innovation. Planned activities include detailed environmental reviews, regulatory pathway planning, and site drilling to obtain the geological data required for submitting a construction permit application to the NRC. Following completion of the UIUC drilling and site characterization program, we obtained the geotechnical information needed to support our construction permit application to the NRC. We are currently completing the final stages of this application and, based on our current progress and planning assumptions, we estimate that we will submit the application in first half of 2026. If the application is submitted as anticipated, we currently estimate that the NRC's review and construction permit issuance process could take approximately 12 months, although the actual timing is subject to NRC review, requests for additional information, and other factors outside of our control. If a construction permit is issued, it would allow us to begin construction activities at the UIUC site, which we currently estimate could occur in 2027. Receipt of a construction permit would not, by itself, authorize operation of the reactor, and additional regulatory approvals and project milestones would be required prior to any operational or commercial deployment. However, there can be no assurance that we will be able to meet this anticipated timeline, as the submission is subject to the completion of ongoing technical, regulatory, and operational preparations, which may be affected by factors beyond our control. Notwithstanding the foregoing, this is expected to be the first construction permit for a microreactor issued in the United States. The permit application will not incur any government fees, as the KRONOS™ reactor, due to its location at UIUC, qualifies for a fee exemption under applicable regulations due to its use for research purposes.

In tandem with geological characterization work at the UIUC site that commenced in the fourth quarter of 2025, we launched a recruitment initiative in the second half of 2025 focused on the Midwest region to support our plans to construct, demonstrate and gain regulatory approval for full-scale KRONOS MMR™ in both the United States and Canada. This workforce build-out will consolidate the expertise and provide the personnel necessary to complete the construction permit application and begin construction of the first KRONOS™ reactor prototype on the UIUC campus shortly thereafter. To support this effort, on July 30, 2025, we announced our acquisition of a 2.75-acre land and building package in Oak Brook, Illinois to serve as a regional demonstration and office facility to support the development of the KRONOS MMR™ reactor. This facility is intended to support engineering, component manufacturing and assembly, prototype fabrication, non-nuclear testing, research and development activities, and administrative functions. The timing, scale, and configuration of the Illinois facility will depend on multiple factors, including site selection, permitting, availability of skilled labor, supply chain readiness, financing, and alignment with our regulatory and commercialization milestones. We are currently undertaking refurbishment of the facility to enable our staff to occupy the Illinois facility in first half of 2026, in accordance with timelines provided by our contractors. Following the relocation of our staff, we plan to continue a phased buildout of the facility to incorporate additional manufacturing capabilities, aligned with the advancement of our reactor programs. Initial facility capabilities may precede full commercial manufacturing capacity and may focus on research, development, and prototype support, with manufacturing capabilities expanded over time as regulatory approvals such as construction, manufacturing and safety are obtained and commercial demand materializes. There can be no assurance that we will establish the facility on the anticipated timeline, or at all. Delays in regulatory approvals or changes in market conditions, customer demand, or strategic priorities could require us to modify, defer, or abandon the planned facility. Any delay, modification, or failure to establish the facility could materially and adversely affect our business strategy, growth prospects, financial condition, and results of operations.

In September 2025, we announced that we signed a 10-year Cooperative Research and Development Agreement (“CRADA”) with the INL. With this agreement, we plan to accelerate our advanced microreactor programs, including the stationary KRONOS MMR™ and portable LOKI MMR™ systems.

On October 7, 2025, we announced that, with the support of Governor JB Pritzker and the Illinois Department of Commerce and Economic Opportunity, we will establish a manufacturing and research and development facility in Illinois. We plan to make an investment of more than \$12 million with the support from the Reimagining Energy and Vehicles in Illinois (REV Illinois) program, which is expected to enable us to establish our operations and create 50 new full-time jobs in Illinois. For this effort, we will receive \$6.8 million in incentive awards from the REV Illinois program.

Significant capital will be needed to support our facility construction, licensing, fuel qualification testing, regulatory compliance, prototype construction, and workforce expansion for the development of our microreactors. We estimate that the capital costs needed to construct prototype KRONOS MMR™ reactors at the UIUC and Canada over the next several years could be around \$300 million to \$350 million per reactor. This range reflects inherent uncertainty in building a first-of-a-kind reactor due to several factors that can result in a material increase to these estimates, including site specific factors, the timing and scope of project development and regulatory licensing and supply chain considerations. Subsequent reactors' capital costs are expected to decline substantially due to supply chain scaling for mass production of components, factory fabrication, modular assembly, and multiple deployments.

- **Fuel Processing Business.** Through our subsidiary, HALEU Energy Fuel Inc., and in coordination with the DOE, we are seeking to develop a domestic low-enriched uranium (LEU) and high-assay low-enriched uranium (HALEU) fuel supply chain to supply fuel not only for our own reactors but also to the broader advanced nuclear reactor industry. While we may engage in this activity through our related party LIST as

described below, as of the date of this prospectus, we have tentatively identified the site where we might construct the facilities and have begun to build the team to design and develop these facilities. However, while we hope to launch our fuel processing business in the second half of 2026, as of the date of this prospectus, we have not yet commercially launched our fuel processing business. There can be no assurance that we will proceed with the launch as currently anticipated.

The launch of this business can be established through multiple avenues, which are all currently under examination by management. We may consider investing in existing pilot conversion operations, where U_3O_8 is converted into uranium hexafluoride (UF_6). This UF_6 would then undergo an enrichment process before being deconverted and fabricated into nuclear fuel. Alternatively, we may pursue licensing existing conversion technologies to build our own conversion facility. Management is also examining the future acquisition of a uranium mining operation to support our long-term vertically integrated strategy (although we have not entered into any material definitive agreements as of the date of this prospectus), any of which would signify progress in advancing our strategy to de-risk our fuel supply chain. We are actively evaluating existing pilot conversion facilities in which we may acquire an equity interest through investment in their development, and we are currently conducting the necessary due diligence, although as of the date of this prospectus, we have not entered into any definitive agreement for such acquisition. In parallel, we are exploring the collaboration opportunities with companies that license conversion technology to assess the potential for the longer-term construction of additional fuel facilities. We have 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 (UF_6) 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 upon between the companies in the future. To support LIST, we intend to construct the back end facilities alongside LIST’s enrichment facility, including the deconversion facility. 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 and Dr. Tsun Yee Law, also serve as directors and officers for LIST, and James Walker and Jaisun Garcha serve as consultants 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 conversion, 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. We believe that participation in the \$3.4 billion LEU Acquisition Program provides technical validation and potential federal contracts to support our operations.

In July 2025, we announced that we have signed a memorandum of understanding with UrAmerica Ltd. (“UrAmerica”), a private exploration company with a package of uranium and other critical metals licenses primarily in Chubut Province, Argentina. The newly signed memorandum formalizes the discussions that we initiated with UrAmerica to explore strategic development across Argentina’s uranium-fuel supply chain. We are currently working together to evaluate specific opportunities that could aid us in securing a dependable source of material for future supply chain options. Such evaluations may lead to the signing of definitive agreements between us and UrAmerica related to particular projects. Through this memorandum, we and UrAmerica aim to build the mining and milling capacities of the uranium supply chain in Argentina with the intention to be a part of the uranium fuel cycle exports into the U.S. Under the memorandum, we will pursue (i) favorable uranium offtake agreements, (ii) potential investments in mineral production and (iii) fuel-cycle infrastructure, and (iv) future joint ventures or related collaboration. One of our goals in entering into the memorandum is to help modernize Argentina’s nuclear sector while strengthening U.S. energy security by sourcing materials for nuclear fuel from a reliable partner.

- **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. As of the date of this prospectus, we have not yet commercially launched our fuel transportation business. We expect to launch our fuel transportation business by 2028. However, the timeline could be impacted by progress in acquiring additional assets and businesses within the nuclear transport industry to provide our company with the capabilities to internally move the materials, reactors, and fuels inherent within a reactor deployment operation, and as of the date of this prospectus, we have not entered into any definitive agreements for such acquisition. Accordingly, there can be no assurance that we will be able to launch the business as currently anticipated, or that such launch will occur by 2028, if at all.

Our fuel transportation business is still at the development stage as of the date of this prospectus. We received an exclusive license for a high capacity HALEU fuel transportation basket design in April 2024, which will form the basis for a new transportation package to complement 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 also seek to acquire assets and existing businesses within the nuclear transportation industry to provide our company with the capabilities to internally move the materials, reactors, and fuels inherent within a reactor deployment operation, although we have not entered into any definitive agreements as of the date of this prospectus. 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, complete further engineering work to modify designs for multiple fuel types, including UO₂ (uranium dioxide), UN (uranium nitride), UZrH (uranium zirconium hydride), UF (uranium-fluoride based fuels), and TRISO (tristructural isotropic particle fuel). As of the date of this prospectus, we have adapted our initially licensed intellectual property to accommodate additional fuel forms and have also begun evaluating broader transportation system development that may ultimately enable us to offer an integrated package capable of transporting multiple types of fuel for our commercial partners. If this business is developed and commercialized, we believe this product will serve as the basis for a domestic HALEU transportation company capable of providing commercial quantities of HALEU fuel. We hope to put our fuel transportation business into operation by 2028. We have also brought on a former United Parcel Service (UPS) executive who works for our fuel transportation subsidiary to assist in growing the transportation business around our technology.

Development and NRC certification of the transportation system will require funding for engineering and regulatory licensing preparation. We plan to raise additional capital, including through our \$400 million at-the-market offering program, to acquire logistics assets or companies to internalize transport capabilities, although as of the date of this prospectus, we have not entered into any definitive agreements for such acquisitions.

- **Nuclear Consultation Services.** We also plan on providing nuclear service support and consultation services for the expanding and resurgent nuclear energy industry in 2026, both domestically and internationally. Regulatory approval is not required to provide such services. This business opportunity represents our nearest term revenue generating opportunity. As of the date of this prospectus, we have not yet formally launched our nuclear consultation business, although we have generated a small amount of revenue from providing services to Digihost as described below. Our goal is to start providing nuclear service support and consultation services for the nuclear energy industry in 2026 based on the estimated time we will take to conclude the acquisition evaluations and consummate the acquisitions. However, this timeline is subject to various uncertainties, including potential acquisitions of similar business (described below), and market-related factors, any of which may materially affect both the feasibility and timing of the launch. Accordingly, there can be no assurance that we will be able to launch the business as currently anticipated, or that such launch will occur in 2026, if at all.

As part of our U.S. domestic initiatives, following our collaboration with Digihost Technology Inc. (“Digihost”) in December 2024, we provided consulting services to Digihost from April to June 2025, despite not having formally launched our consulting service offerings. Our consulting support contributed to the planning and execution of the Digihost project and included regulatory advice, site assessment, roadmap development, and stakeholder engagement. We are currently evaluating strategic acquisitions or collaborations to expand our business operations and formally establish our consulting services, and have commenced several material discussions with potential targets for such acquisitions or collaborations, but as of the date of this prospectus, we have not entered into any definitive agreements for such acquisitions or collaborations. 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 both domestically and internationally. As of the date of this prospectus, we believe we have sufficient funds to support the development of our nuclear consultation 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 and Market

We believe that the U.S. domestic nuclear energy sector is undergoing a renaissance that we believe we can capitalize on. Strong demand signals and investment support from the Tech Industry, growing demand for clean energy sources to support climate mandates, combined with DOE programs intended to build back national nuclear infrastructure, have created positive market momentum and investor sentiment, which is further driving development and market forces within the nuclear energy industry.

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.

In 2021, the White House published a statement titled *"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."* On May 23, 2025, President Trump signed a series of executive orders aimed at accelerating the development and deployment of nuclear energy in the United States. These directives set forth a national objective to quadruple nuclear energy capacity by 2050 and direct federal agencies, including the DOE and the NRC, to implement policy reforms supporting the restart of shuttered plants, expedited licensing of new reactors, and expanded investment in advanced nuclear technologies such as small modular reactors (SMRs). The orders also emphasized strengthening the domestic uranium supply chain and supporting workforce development initiatives. These policy measures are expected to significantly impact the regulatory environment, capital access, and strategic direction of the nuclear energy sector.

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.

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 energy 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.

We believe we are competitively differentiated in many ways.

- **Non-Dependent on Government Funding.** Most small modular reactor (SMR) and microreactor companies are reliant on government grants and financing to progress their concepts. Consequently, their progress may cease once government funding is not available. Conversely, we do not rely on government funding to sustain our business operations.
- **Technical Insight.** On the technical front, we have benefited from insight into the problems which affected earlier movers within the advanced reactor space. SMR companies have raised billions of dollars for development but have been stalled by technical challenges, such as needing to qualify fuel or coolants, 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 the fuel supply chain and examining our own fuel processing facilities, as well as opting to use 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.
- **Government Contacts.** During 2024 and 2025, 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, (iii) David Tiktinsky, a forty year veteran of the NRC, who joined as our Head of Nuclear Regulatory Licensing and (iv) Dr. Seth Berl, a former Deputy Chief Data Officer at the DOE, who joined our board of directors. 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.
- **World Class Team.** Our technical team is world class, with simple and realizable reactor concepts that do not require exotic fuels, and is aware of all the difficulties faced by almost every other reactor company who has chosen designs which have complicated development and licensing. 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.
- **Government Initiatives.** 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, including legislation, grants, project funding and loan guarantees. Aside from the support for existing nuclear capabilities, all of these initiatives have the potential directly or indirectly to benefit and support our company.

Our Competitive Strengths

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

Nuclear Reactor 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 within the nuclear fuel supply chain and transportation. Our diversified business model will make us highly differentiated from other reactor companies. We believe we have an expertise advantage over other companies developing microreactors, as we can and have recruited some of 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. 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, we believe our lead project, the KRONOS MMR™ Energy System, has among the most, if not the most, high technology readiness of the current known microreactor designs in the market given the millions of dollars of research and development invested in the project by its prior owner. We believe this gives the KRONOS MMR™ Energy System an advantage over other competing microreactor designs.

Fuel Processing Business. We believe, based on our market research, that no SMR and microreactor company is currently developing an integrated fuel supply chain to produce the fuel for their reactors. Our strategy to develop 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.

Fuel Transportation Business. We identified a transportation concept which investigated a high capacity HALEU fuel transportation basket design, which was developed by INL, ORNL and PNNL, and funded by the DOE. The technology was pursued by DOE to create a full HALEU transportation package, which provided the most advanced solution 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 an NRC certified and transportation package for the transportation of HALEU materials.

Our Challenges

Our plan to develop and launch a vertically integrated, high technology nuclear energy business faces and will continue to face many significant challenges, as our business involves complex nuclear technology, regulatory hurdles, rapidly shifting market dynamics and intense competition. These challenges include, but are not limited to, the following:

- Obtaining the necessary permits and licenses for nuclear reactors, fuel facilities and transportation capabilities is time-consuming and expensive. Nuclear reactors 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 and our other nuclear energy-related facilities 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. We estimate that the capital costs needed to construct the prototype KRONOS MMR™ reactors at the UIUC and Canada over the next several years could be around \$300 million to \$350 million per reactor, given the bespoke nature of these initial construction projects. This range reflects inherent uncertainty in building a first-of-a-kind reactor due to several factors that can result in a material increase to these estimates, including site specific factors, the timing and scope of project development and regulatory licensing and supply chain considerations. The range also assumes what we believe are conservative cost estimates for our initial demonstration reactors. Subsequent reactors' capital costs are expected to decline substantially due to supply chain scaling for mass production of components, factory fabrication, modular assembly, and multiple deployments.
- The political, regulatory and competitive landscape can change, impacting the stability and viability of nuclear projects. International agreements and geopolitical factors can also affect nuclear technology, access and export.

In this prospectus and the documents incorporated herein by reference, we provide our current estimated timelines for advancing and commercially launching our business lines. Readers are cautioned, however, there can be no assurance that we will meet our anticipated timelines, if at all, as our business operations are subject to the completion of ongoing technical, regulatory, and operational preparations, which are inherently uncertain and risky given the nature of our business and may be affected by factors beyond our control.

For further information on the challenges we face, please see the “*Cautionary Note Regarding Forward-Looking Statements*” and “*Risk Factors*” section of this prospectus and in the documents incorporated herein by reference, most notably our 2025 Annual Report on Form 10-K for the year ended September 30, 2025, which was filed on December 18, 2025, and our Quarterly Report on Form 10-Q for the three months ended December 31, 2025, which was filed on February 17, 2026.

Competition

We face significant competition within our industry. Our competitors target similar power output ranges and employ a range of technologies, including both conventional and novel nuclear reactor designs. In addition, we face competition outside the nuclear energy sector, including fossil fuel-based power generation, renewable energy sources, long duration energy storage solutions, and other nuclear reactor technologies. 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.

Intellectual Property

We have developed, acquired or licensed important intellectual property to protect our technologies. As of the date of this prospectus, we have a total of 47 issued, pending, or published patents, and 21 registered, pending, or published trademarks.

Specifically, we have 30 issued, pending or published patents, 18 registered, pending or published trademarks, and other technology and intellectual property related to the KRONOS MMR™ Energy System and LOKI MMR™ Energy System. Of these patents and patent applications, eleven were filed with the USPTO, and nineteen were filed with foreign patent offices in various jurisdictions, including Canada, Europe, Korea, China, Japan, United Kingdom, and South Africa. In addition, we also hold intellectual property and related rights associated with a demonstration project in the United States, including commercial and non-commercial licensing rights.

We have 12 patent applications related to various aspects of the ZEUS™ microreactor and power plant design, including six U.S. utility applications and six corresponding international applications filed under the PCT. The U.S. utility applications are pending and awaiting examination by the USPTO, and the PCT international applications await national stage entry as of the date of this prospectus. We have one pending trademark application related to the ZEUS™ technology.

We also have five patent applications related to our acquired ALIP technology for small nuclear reactor cooling, which include four U.S. utility applications and one international PCT application. As of the date of this prospectus, the U.S. utility applications are pending and awaiting examination by the USPTO, and the international PCT application is awaiting national entry.

We also have an exclusive license granted by Battelle Energy Alliance, LLC, the manager of the INL (BEA) for our fuel transportation technology, and one pending trademark application related to our fuel transportation technology.

Arrangements with Our Executive Officers

All of our executive officers are employed with us under employment agreements.

Almost all of our executive officers 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. 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 the chief executive officer and chairman of the board of LIST. Mr. James Walker, our Chief Executive Officer, currently allocates at least five 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. Mr. Jaisun Garcha, our Chief Financial Officer, is currently, and will continue to, work full time with us, and is currently also working as a consultant to LIST.

Corporate Information

We were incorporated under the laws of the State of Nevada on February 8, 2022. Our principal executive office is located at 10 Times Square, 30th Floor, New York, NY 10018, and our telephone number is (212) 634-9206. Our website is www.nanonuclearenergy.com. Information contained on, or available through, our website does not constitute part of, and is not deemed incorporated by reference into, this prospectus, and investors should not rely on such information in deciding whether to purchase shares of our common stock.

Summary of Consolidated Financial Information

The following table sets forth certain summary financial and other data for the periods ended and at the dates indicated below. Our summary financial information for the years ended September 30, 2025 and 2024 has been derived from our audited condensed consolidated financial statements incorporated by reference in this prospectus. Our summary financial information for the three months ended December 31, 2025 and 2024 has been derived from our unaudited consolidated financial statements incorporated by reference in this prospectus. The financial data set forth below should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations”, the audited consolidated financial statements and notes thereto included in our 2025 Annual Report and the unaudited condensed consolidated financial statements and notes thereto included in our Quarterly Report for the three months ended December 31, 2025, which have been filed with the SEC and are incorporated by reference into this prospectus.

Consolidated Balance Sheets

	<u>December 31, 2025</u>	<u>September 30, 2025</u>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 577,533,949	\$ 203,265,052
Accounts receivable, net	86,381	250,000
Prepaid expenses	1,014,889	902,861
Deposits, current	1,850,000	250,000
Marketable securities, at fair value	279,677	-
Total current assets	<u>580,764,896</u>	<u>204,667,913</u>
Deferred offering costs	435,500	300,000
Deposits, non-current	274,001	269,235
Property, plant and equipment, net	11,029,284	9,783,777
Right-of-use assets	2,477,435	2,560,896
Long-term investments, related party	2,000,000	2,000,000
In-process research and development	9,075,045	9,075,045
Total assets	<u>\$ 606,056,161</u>	<u>\$ 228,656,866</u>
LIABILITIES AND STOCKHOLDERS’ EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 2,540,706	\$ 1,314,596
Lease liabilities, current	540,801	534,128
Contingent consideration	1,250,500	1,978,000
Total current liabilities	<u>4,332,007</u>	<u>3,826,724</u>
Lease liabilities, non-current	2,145,365	2,261,414
Total liabilities	<u>6,477,372</u>	<u>6,088,138</u>
Stockholders’ equity		
Preferred stock, \$0.0001 par value; 25,000,000 authorized as of December 31, 2025 and September 30, 2025; none issued and outstanding as of December 31, 2025 and September 30, 2025	-	-
Common stock, \$0.0001 par value; 275,000,000 authorized as of December 31, 2025 and September 30, 2025; 50,581,794 and 41,738,358 shares issued and outstanding as of December 31, 2025 and September 30, 2025, respectively	5,056	4,173
Additional paid-in capital	663,601,589	280,065,412
Accumulated deficit	(64,017,136)	(57,500,857)
Accumulated other comprehensive loss	(10,720)	-
Total stockholders’ equity	<u>599,578,789</u>	<u>222,568,728</u>
Total liabilities and stockholders’ equity	<u>\$ 606,056,161</u>	<u>\$ 228,656,866</u>

	<u>September 30, 2025</u>	<u>September 30, 2024</u>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 203,265,052	\$ 28,507,257
Accounts receivable, net	250,000	-
Prepaid expenses	902,861	833,947
Deposits, current	250,000	-
Total current assets	<u>204,667,913</u>	<u>29,341,204</u>
Deferred offering costs	300,000	-
Deposits, non-current	269,235	235,235
Property, plant and equipment, net	9,783,777	1,689,607
Right-of-use assets	2,560,896	1,830,124
Long-term investments, related party	2,000,000	2,000,000
In-process research and development	9,075,045	-
Total assets	<u>\$ 228,656,866</u>	<u>\$ 35,096,170</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 1,314,596	\$ 761,479
Due to related parties	-	25,000
Lease liabilities, current	534,128	281,352
Contingent consideration	1,978,000	770,500
Total current liabilities	<u>3,826,724</u>	<u>1,838,331</u>
Lease liabilities, non-current	2,261,414	1,650,383
Total liabilities	<u>6,088,138</u>	<u>3,488,714</u>
Stockholders' equity		
Preferred stock, \$0.0001 par value; 25,000,000 authorized as of September 30, 2025 and September 30, 2024; none issued and outstanding as of September 30, 2025 and September 30, 2024	-	-
Common stock, \$0.0001 par value; 275,000,000 authorized as of September 30, 2025 and September 30, 2024; 41,738,358 and 30,715,663 shares issued and outstanding as of September 30, 2025 and September 30, 2024, respectively	4,173	3,072
Additional paid-in capital	280,065,412	49,038,165
Accumulated deficit	(57,500,857)	(17,433,781)
Total stockholders' equity	<u>222,568,728</u>	<u>31,607,456</u>
Total liabilities and stockholders' equity	<u>\$ 228,656,866</u>	<u>\$ 35,096,170</u>

Consolidated Statements of Operations

	Three Months Ended	
	December 31, 2025	December 31, 2024
Operating expenses		
General and administrative	\$ 6,886,603	\$ 2,494,570
Research and development	5,400,410	904,923
Change in fair value of contingent consideration	(727,500)	524,250
Loss from operations	11,559,513	3,923,743
Other income	5,013,557	810,381
Unrealized loss on marketable securities	(122,838)	-
Gain on settlement of accounts receivable	152,515	-
Net loss	\$ (6,516,279)	\$ (3,113,362)
Other comprehensive loss:		
Cumulative translation adjustment	(10,720)	-
Comprehensive loss	\$ (6,526,999)	\$ (3,113,362)
Net loss per share of common stock:		
Basic	\$ (0.13)	\$ (0.09)
Diluted	\$ (0.13)	\$ (0.09)
Weighted-average shares of common stock outstanding:		
Basic	49,807,203	33,964,495
Diluted	49,807,203	33,964,495
	For the Year Ended	For the Year Ended
	September 30, 2025	September 30, 2024
Operating expenses		
General and administrative	\$ 29,562,520	\$ 6,850,993
Research and development	15,446,513	3,725,565
Change in fair value of contingent consideration	1,207,500	(66,000)
Loss from operations	(46,216,533)	(10,510,558)
Other income	6,149,457	359,002
Net loss	\$ (40,067,076)	\$ (10,151,556)
Net loss per share of common stock:		
Basic	\$ (1.06)	\$ (0.39)
Diluted	\$ (1.06)	\$ (0.39)
Weighted-average shares of common stock outstanding:		
Basic	37,910,547	26,222,442
Diluted	37,910,547	26,222,442

Consolidated Statements of Stockholders' Equity

For the Three Months Ended December 31, 2025

	<u>Common Shares</u>	<u>Amount</u>	<u>Additional Paid-in Capital</u>	<u>Accumulated Deficit</u>	<u>Accumulated Other Comprehensive Loss</u>	<u>Total Stockholders' Equity</u>
Balance as of September 30, 2025	41,738,358	\$ 4,173	\$ 280,065,412	\$ (57,500,857)	\$ -	\$ 222,568,728
Common stock issuances	8,490,767	850	399,999,183	-	-	400,000,033
Offering costs	-	-	(21,520,711)	-	-	(21,520,711)
Exercise of warrants	140,169	14	2,445,034	-	-	2,445,048
Exercise of stock options	195,000	19	539,981	-	-	540,000
Equity-based compensation	17,500	-	2,072,690	-	-	2,072,690
Net loss	-	-	-	(6,516,279)	-	(6,516,279)
Accumulated other comprehensive income loss	-	-	-	-	(10,720)	(10,720)
Balance as of December 31, 2025	<u>50,581,794</u>	<u>\$ 5,056</u>	<u>\$ 663,601,589</u>	<u>\$ (64,017,136)</u>	<u>\$ (10,720)</u>	<u>\$ 599,578,789</u>

For the Three Months Ended December 31, 2024

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

For the Year Ended September 30, 2025

	<u>Common Shares</u>	<u>Amount</u>	<u>Additional Paid-in Capital</u>	<u>Accumulated Deficit</u>	<u>Total Stockholders' Equity</u>
Balance as of September 30, 2024	30,715,663	\$ 3,072	\$ 49,038,165	\$ (17,433,781)	\$ 31,607,456
Common stock issuances	8,824,183	883	206,399,132	-	206,400,015
Offering costs	-	-	(15,076,556)	-	(15,076,556)
Exercise of warrants	1,254,512	123	18,476,051	-	18,476,174
Exercise of stock options	944,000	95	2,404,405	-	2,404,500
Equity-based compensation	-	-	18,824,215	-	18,824,215
Net loss	-	-	-	(40,067,076)	(40,067,076)
Balance as of September 30, 2025	<u>41,738,358</u>	<u>\$ 4,173</u>	<u>\$ 280,065,412</u>	<u>\$ (57,500,857)</u>	<u>\$ 222,568,728</u>

For the Year Ended September 30, 2024

	<u>Mezzanine Equity</u>		<u>Permanent Equity</u>				<u>Total Stockholders' Equity</u>
	<u>Shares</u>	<u>Amount</u>	<u>Shares</u>	<u>Amount</u>	<u>Additional Paid-in Capital</u>	<u>Accumulated Deficit</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>

Consolidated Statements of Cash Flows

	For the Three Months Ended December 31, 2025	For the Three Months Ended December 31, 2024
OPERATING ACTIVITIES		
Net loss	\$ (6,516,279)	\$ (3,113,362)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of right-of-use assets	83,462	43,918
Depreciation	208,408	19,976
Equity-based compensation	2,072,690	-
Bank revaluation	731	-
Change in fair value of contingent consideration	(727,500)	524,250
Unrealized gain on marketable securities	122,838	-
Gain on settlement on accounts receivable	(152,515)	-
Change in assets and liabilities:		
Accounts receivable	(86,381)	-
Prepaid expenses	(112,028)	(789,747)
Accounts payable and accrued liabilities	1,226,110	137,774
Due to related parties	-	(25,000)
Lease liabilities	(109,376)	(40,335)
Net cash used in operating activities	(3,989,840)	(3,242,526)
INVESTING ACTIVITIES		
Deposits	(1,604,766)	(3,560,000)
Construction-in-progress	(1,453,915)	-
Net cash used in investing activities	(3,058,681)	(3,560,000)
FINANCING ACTIVITIES		
Proceeds from common stock issuances	400,000,033	101,400,012
Offering costs	(21,520,711)	(9,058,856)
Proceeds from exercise of warrants	2,445,048	8,014,286
Proceeds from exercise of stock options	540,000	1,207,500
Payment of deferred offering costs	(135,500)	-
Net cash provided by financing activities	381,328,870	101,562,942
Net increase in cash and cash equivalents	374,280,349	94,760,416
Cash and cash equivalents, beginning of period	203,265,052	28,507,257
Effect of exchange rate changes on cash	(11,452)	-
Cash and cash equivalents, end of period	\$ 577,533,949	\$ 123,267,673

	<u>For the Year Ended September 30, 2025</u>	<u>For the Year Ended September 30, 2024</u>
OPERATING ACTIVITIES		
Net loss	\$ (40,067,076)	\$ (10,151,556)
Adjustments to reconcile net loss to net cash used in operating activities:		
Equity-based compensation	18,824,215	320,257
Amortization of right-of-use assets	295,576	96,532
Depreciation	355,162	10,393
R&D acquisition paid-in equity	-	786,500
Changes in fair value of contingent liability	1,207,500	-
Change in assets and liabilities:		
Prepaid expenses	(68,914)	(628,090)
Deposits	(284,000)	(235,235)
Accounts receivable	(250,000)	-
Accounts payable and accrued liabilities	553,115	571,474
Due to related parties	(25,000)	(10,000)
Lease liabilities	(162,541)	5,079
Contingent liability	-	770,500
Net cash used in operating activities	<u>(19,621,963)</u>	<u>(8,464,146)</u>
INVESTING ACTIVITIES		
In-process research and development	(9,075,045)	-
Increase in long-term investments	-	(2,000,000)
Additions to property, plant and equipment	(8,449,332)	(1,700,000)
Net cash used in investing activities	<u>(17,524,377)</u>	<u>(3,700,000)</u>
FINANCING ACTIVITIES		
Proceeds from common stock issuances	206,400,015	34,953,937
Offering costs	(15,076,556)	(3,554,829)
Proceeds from exercise of warrants	18,476,176	1,275,500
Proceeds from exercise of stock options	2,404,500	1,044,000
Payment of deferred offering costs	(300,000)	-
Net cash provided by financing activities	<u>211,904,135</u>	<u>33,718,608</u>
Net increase in cash	174,757,795	21,554,462
Cash and cash equivalents, beginning of year	28,507,257	6,952,795
Cash and cash equivalents, end of year	<u>\$ 203,265,052</u>	<u>\$ 28,507,257</u>
Non-Cash Supplemental Disclosures		
Inception of Right-of-Use Asset / Lease Liability	\$ 1,026,348	\$ 1,926,178

THE OFFERING

Common Stock to be offered:	8,490,767 Shares held by the selling stockholders.
Terms of the Offering:	The selling stockholders will determine when and how to sell the Selling Stockholder Shares offered in this prospectus, as described in “Plan of Distribution.”
Use of Proceeds:	We will not receive any proceeds from the sale of Shares in this offering.
Listing and Symbols:	Our common stock is listed on The Nasdaq Capital Market under the symbol “NNE.”
Risk Factors:	<i>Investing in our securities is speculative and involves substantial risks.</i> You should read the “Risk Factors” section of this prospectus and in the documents incorporated by reference in this prospectus for a discussion of factors to consider before deciding to purchase our securities.

Shares of our common stock that may be offered under this prospectus will be fully paid and non-assessable. Throughout this prospectus, when we refer to the shares of our common stock being registered on behalf of the selling stockholders for offer and resale, we are referring to the Shares that have been issued to the selling stockholders in our October 2025 private placement. When we refer to the selling stockholders in this prospectus, we are referring to the selling stockholders identified in this prospectus and, as applicable, their permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

RISK FACTORS

Investing in our common stock is speculative and involves a high degree of risk. You should carefully consider the risks and uncertainties described under “Risk Factors” in our most recent Annual Report on Form 10-K as supplemented or updated in our most recent Quarterly Report on Form 10-Q, any current reports on Form 8-K, as well as any accompanying prospectus supplement, together with all of the other information included or incorporated by reference in this prospectus and in any accompanying prospectus supplement, including our financial statements and related notes, before deciding whether to purchase our common stock. See “Incorporation of Certain Information by Reference” for more information on the filings (including the risk factors) which are incorporated herein by reference.

Our business, financial condition and results of operations could be materially and adversely affected by any or all of these risks or by additional risks and uncertainties not presently known to us or that we currently deem immaterial that may materially and adversely affect us in the future.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the Shares by the selling stockholders. The selling stockholders will pay any expenses incurred by the selling stockholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling stockholders in disposing of their shares of common stock. We will bear all other costs, fees and expenses incurred in effecting the registration of the Shares covered by this prospectus, including, without limitation, all registration fees and fees and expenses of our counsel and our accountants.

SELLING STOCKHOLDERS

The shares of common stock being offered by the selling stockholders listed below were issued by us in a private placement which closed on October 10, 2025. Other than the relationships as purchasers under the Securities Purchase Agreement (as defined below) and as otherwise described herein, to our knowledge, no material relationships exist between any of the selling stockholders and us nor have any such material relationships existed within the past three years.

As used herein, the term “selling stockholders” means the selling stockholders listed below and such holders’ donees, pledgees, transferees, or other successors-in-interest selling shares of common stock or warrant shares received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer.

Summary of October 2025 Private Placement

On October 7, 2025, we entered into a Securities Purchase Agreement (the “Securities Purchase Agreement”) with six institutional investors, who are the selling stockholders hereunder (the “Investors”), pursuant to which we agreed to offer and sell 8,490,767 Shares in a private placement for gross proceeds of approximately \$400,000,000. Pursuant to the Securities Purchase Agreement, we issued and sold the Shares in the private placement at a purchase price of \$47.11 per share. The private placement closed on October 10, 2025. After deducting the placement agent fees and estimated offering expenses payable by us, we received net proceeds of approximately \$378,600,000.

Pursuant to the Securities Purchase Agreement, we agreed to include a resale prospectus in the next amendment to its registration statement on Form S-3 initially filed with the Securities and Exchange Commission (the “SEC”) on July 25, 2025 (File No. 333-288982) covering the resale of the Shares as soon as practicable but no later than October 25, 2025 (the date of filing, the “Filing Date”), and with such registration statement to be effective within 30 days following the later of (i) the Filing Date, and (ii) the second business day after the date on which the United States Federal government shutdown has concluded and the SEC has reopened for operations, if it is not subject to review by the SEC. We will have an additional 30 days to cause such registration statement to become effective if it is subject to full review by the SEC. We have filed the registration statement of which this prospectus forms a part in satisfaction of the foregoing Investor registration rights.

Titan Partners Group LLC, a division of American Capital Partners, LLC, acted as placement agent for the private placement and for services rendered received a cash fee equal to 5.0% of the gross proceeds received by us in the private placement, and reimbursement of \$200,000 in legal expenses.

Selling Stockholders Table

The table below lists the selling stockholders and other information regarding the beneficial ownership of the shares of common stock by each of the selling stockholders. The table below sets forth information as of the date of this prospectus, to our knowledge, about the beneficial ownership of our common stock by the selling stockholders both before and immediately after this offering. Because the selling stockholders may sell, transfer, or otherwise dispose of all, some, or none of their shares of common stock, we cannot determine the number of such shares that will be sold, transferred or otherwise disposed of by the selling stockholders, or the amount or percentage of shares of our common stock that will be held by the selling stockholders upon termination of any particular offering. See “Plan of Distribution.” For purposes of the table below, we assume that the selling stockholders will sell all of their shares of common stock.

Name	Shares of Common Stock Beneficially Owned Before Completion of the Offering (1)		Sum of Number of Shares of Common Stock Offered Hereby (2)	Shares of Common Stock Beneficially Owned After Completion of the Offering (1)	
	Number of Shares	Percentage		Number of Shares	Percentage
Blackstone Global Master Fund ICAV (2)	2,122,692	4.19%	2,122,692	-	-
Citadel CEMF Investments Ltd. (3)	1,199,443	2.37%	1,199,443	-	-
Point72 Associates, LLC (4)	711,000	1.41%	711,000	-	-
Regal Funds Management Pty Limited (5)	1,273,614	2.52%	1,273,614	-	-
Weiss Asset Management and affiliates (6)	1,594,795	3.15%	1,592,018	2,777	*
Ghisallo Master Fund LP (7)	1,592,000	3.15%	1,592,000	-	-
TOTAL			8,490,767	2,777	*

* Less than 1%.

- (1) Applicable percentages based on 52,083,194 shares of common stock outstanding as of March 6, 2026.
- (2) Consists of (i) 1,592,019 shares held directly by Blackstone Aqua Master Sub-Fund (the "Aqua Fund"), a sub-fund of Blackstone Global Master Fund ICAV and (ii) 530,673 held directly by BSOF Liquid Investments L.P. ("BSOF"). Blackstone Alternative Solutions L.L.C. is the investment manager of each of the Aqua Fund and BSOF. Blackstone Holdings I L.P. is the sole member of Blackstone Alternative Solutions L.L.C. Blackstone Holdings I/II GP L.L.C. is the general partner of Blackstone Holdings I L.P. Blackstone Inc. is the sole member of Blackstone Holdings I/II GP L.L.C. Blackstone Group Management L.L.C. is the sole holder of the Series II preferred stock of Blackstone Inc. Blackstone Group Management L.L.C. is wholly owned by its senior managing directors and controlled by its founder, Stephen A. Schwarzman. Each of such Blackstone entities and Mr. Schwarzman may be deemed to beneficially own the securities beneficially owned by the Aqua Fund and BSOF directly or indirectly controlled by it or him, but each (other than the Aqua Fund and BSOF to the extent of each of its direct holdings) disclaims beneficial ownership of such securities. The address of each of the entities listed is c/o Blackstone Inc., 345 Park Avenue, New York, NY 10154.
- (3) Consists of 1,199,443 shares of common stock purchased by Citadel CEMF Investments Ltd., or Citadel CEMF, in connection with the private placement. Citadel Advisors LLC is the portfolio manager of Citadel CEMF. Citadel Advisors Holdings LP, or CAH, is the sole member of Citadel Advisors LLC. Citadel GP LLC, or CGP, is the general partner of CAH. Kenneth Griffin owns a controlling interest in CGP. Mr. Griffin, as the owner of a controlling interest in CGP, may be deemed to have shared power to vote or direct the vote of, and/or shared power to dispose or to direct the disposition over, the securities held by Citadel CEMF. This disclosure is not and shall not be construed as an admission that Mr. Griffin or any of the Citadel CEMF related entities listed above is the beneficial owner of any securities of the Company other than the securities actually owned by such person (if any). The address of Citadel CEMF is c/o Citadel Enterprise Americas LLC, Southeast Financial Center, 200 S. Biscayne Blvd., Suite 3300, Miami, FL 33131.
- (4) Point72 Asset Management, L.P. maintains investment and voting power with respect to the securities held by certain investment funds it manages, including Point72 Associates, LLC. Point72 Capital Advisors, Inc. is the general partner of Point72 Asset Management, L.P. Mr. Steven A. Cohen controls each of Point72 Asset Management, L.P. and Point72 Capital Advisors, Inc. By reason of the provisions of Rule 13d-3 of the Exchange Act, each of Point72 Asset Management, L.P., Point72 Capital Advisors, Inc., and Mr. Cohen may be deemed to beneficially own the securities held by Point72 Associates, LLC that are disclosed herein. Each of Point72 Asset Management, L.P., Point72 Capital Advisors, Inc., and Mr. Cohen disclaims beneficial ownership of any such securities.
- (5) Regal Funds Management Pty Ltd. is controlled by Regal Partners Limited. Philip King has voting and dispositive power with respect to the securities held by this selling stockholder. Mr. King disclaims beneficial ownership of the shares held by this selling stockholder, except to the extent of his pecuniary interest therein. The address of the selling stockholder is Level 46, Gateway, 1 Macquarie Place, Sydney NSW 2000.
- (6) Shares offered hereby consists of (i) 955,211 shares held by Brookdale Global Opportunity Fund ("BGO") and (ii) 636,807 shares held by Brookdale International Partners, L.P. ("BIP"). Andrew Weiss is the Manager of WAM GP LLC, which is the general partner of Weiss Asset Management LP, the investment manager of BGO and BIP. WAM GP LLC is also the Manager of BIP GP LLC, the general partner of BIP. Mr. Weiss has voting and dispositive power with respect to the securities held by BGO and BIP. Mr. Weiss, WAM GP LLC, Weiss Asset Management LP and BIP GP LLC each disclaim beneficial ownership of the shares held by BGO and BIP, except to the extent of their respective pecuniary interests therein. The business address of the foregoing entities is c/o Weiss Asset Management, 222 Berkeley Street, 16th Floor, Boston, MA 02116.
- (7) Ghisallo Master Fund LP ("Ghisallo") is the beneficial owner of the shares of common stock. Ghisallo Capital Management LLC ("Ghisallo Capital") is the investment manager of Ghisallo and has voting control over the securities. The securities held by Ghisallo may be deemed to be beneficially owned by Ghisallo Capital and Michael Germino. Notwithstanding the foregoing, Mr. Germino disclaims beneficial ownership of the shares of common stock except to the extent of his pecuniary interest therein. The address of the selling stockholder is c/o Walkers Corporate, 190 Elgin Avenue, George Town Grand Cayman, CI KY 1-9008.

PLAN OF DISTRIBUTION

We are registering the Shares on behalf of the selling stockholders to permit the resale of such shares by the selling stockholders from time to time after the date of this prospectus. The Shares were purchased from us by the selling stockholders in a private placement which closed on October 10, 2025. We will not receive any of the proceeds from the sale of the Shares by the selling stockholders. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling stockholders, which may include donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholders as a gift, pledge, partnership distribution or other transfer, may sell all or a portion of the shares of common stock beneficially owned by them and offered hereby from time to time on any stock exchange, market or trading facility on which the shares are traded or in private transactions.

A selling stockholder may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its own account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- through agreements between broker-dealers and the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of Shares owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the Shares, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the Shares in other circumstances, in which case the pledgees, transferees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders also may resell all or a portion of the Shares in open market transactions in reliance upon Rule 144 under the Securities Act, as permitted by that rule, or Section 4(a)(1) under the Securities Act, if available, rather than under this prospectus; provided that they meet the criteria and conform to the requirements of those provisions.

In connection with the sale of the Shares or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of our common stock in the course of hedging the positions they assume. The selling stockholders may also sell our common stock short and deliver the Shares to close out their short positions, or loan or pledge the Shares to broker-dealers that in turn may sell the Shares. The selling stockholders may also enter into options or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to each such broker-dealer or other financial institution of Shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the Shares offered by them will be the purchase price of the Shares, less discounts or commissions, if any. The selling stockholders reserve the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of Shares to be made directly or through agents.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the Shares or interests therein may be “underwriters” within the meaning of Section 2(a)(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the Shares may be underwriting discounts and commissions under the Securities Act. If the selling stockholders is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the Shares to be sold, the name of the selling stockholder, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

If underwriters are used in the sale, the Shares will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. In connection with any such underwritten sale of Shares, underwriters may receive compensation from the selling stockholder, for whom they may act as agents, in the form of discounts, concessions or commissions. If the selling stockholders use an underwriter or underwriters to effectuate the sale of Shares, we and/or the applicable selling stockholder will execute an underwriting agreement with those underwriters at the time of sale of those Shares.

To the extent required by law, the names of the underwriters will be set forth in a prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes the prospectus supplement and the accompanying prospectus used by the underwriters to sell those

securities. The obligations of the underwriters to purchase those Shares will be subject to certain conditions precedent, and unless otherwise specified in a prospectus supplement, the underwriters will be obligated to purchase all the Shares offered by such prospectus supplement if any of such Shares are purchased. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the Shares against certain liabilities, including liabilities arising under the Securities Act.

Listing

Our common stock is listed on The Nasdaq Capital Market under the trading symbol “NNE.”

LEGAL MATTERS

The validity of the issuance of the common stock offered by this prospectus has been passed upon for us by Parsons Behle & Latimer, Reno, Nevada.

EXPERTS

The consolidated financial statements of Nano Nuclear Energy, Inc. and its consolidated subsidiaries, as of and for the fiscal years ended September 30, 2025 and 2024, incorporated in this prospectus by reference to our 2025 Annual Report on Form 10-K for the fiscal year ended September 30, 2025, have been so incorporated in reliance on the report of WithumSmith+Brown, PC, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 that we have filed with the SEC under the Securities Act and does not contain all the information set forth or incorporated by reference in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement, or to the exhibits to the reports or other documents incorporated by reference in this prospectus, for a copy of such contract, agreement or other document. We file annual, quarterly and periodic reports, proxy statements and other information with the SEC, using its EDGAR system. The SEC provides free public access, through its website, to items publicly filed in the EDGAR system, including our items. The address of the SEC's website is <https://www.sec.gov>.

We also maintain a website at www.nanonuclearenergy.com. You may access these materials at our website free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained in, or that can be accessed through, our website is not a part of, and is not incorporated into, this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We are "incorporating by reference" in this prospectus certain documents we have filed or will file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (1) after the date of the initial registration statement, as amended, and prior to effectiveness of the registration statement, and (2) after the date of this prospectus and prior to the termination of this offering, from their respective filing dates (other than any portions thereof, which under the Exchange Act, and applicable SEC rules, are not deemed "filed" under the Exchange Act). Such information will automatically update and supersede the information contained in this prospectus and the documents listed below:

1. Our Annual Report on [Form 10-K](#) for the fiscal year ended September 30, 2025, filed with the SEC on December 18, 2025 (the "2025 Annual Report");
2. Our Current Reports on Form 8-K filed with the SEC on [October 10, 2025](#), [October 22, 2025](#), and [February 5, 2026](#), respectively (excluding any information therein disclosed under Items 2.02 or 7.01 or any corresponding information furnished under Item 9.01 or included as an exhibit);
3. Our quarterly report ("Quarterly Report") on [Form 10-Q](#) filed with the SEC on February 17, 2026; and
4. The description of our shares of common stock contained in our registration statement on [Form 8-A](#), filed with the SEC on May 6, 2024.

In addition, all documents and/or reports that we file with the SEC pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act subsequent to the date of the registration statement of which this prospectus is a part, and prior to the termination or completion of any applicable offering of securities under this prospectus or the filing of a post-effective amendment to such registration statement that indicates that all securities offered under this prospectus have been sold, or that deregisters all securities then remaining unsold, will be deemed to be incorporated herein by reference and to be a part hereof from the date of filing of such documents.

Notwithstanding the foregoing, none of the information that we disclose under Items 2.02 or 7.01 of any Current Report on Form 8-K, or any corresponding information furnished under Item 9.01 or included as an exhibit, that we may from time to time furnish to the SEC, will be incorporated by reference in, or otherwise included in, this prospectus, except as otherwise expressly set forth in the relevant document. Subject to the foregoing, all information appearing in this prospectus is qualified in its entirety by the information appearing in the documents incorporated by reference.

You may request, orally or in writing, a copy of the documents we incorporate by reference, which will be provided to you at no cost (other than exhibits, unless such exhibits are specifically incorporated by reference), by contacting our Secretary, c/o Nano Nuclear Energy Inc. at 10 Times Square, 30th Floor, New York, NY 10018. Our telephone number is (212) 634-9206.



8,490,767 Shares of Common Stock

Offered by the Selling Stockholders

PROSPECTUS

March 13, 2026
