NANO Nuclear Energy Closes Acquisition of Patented Micro Modular Reactor (MMR®) and Pylon Transportable Reactor Technologies

January 13, 2025

Acquisition immediately adds one of the highest technology readiness level advanced nuclear reactors in development and significantly expands NANO Nuclear's patent portfolio.

Acquisition also brings important contracts, collaboration and adds to existing pipeline of cutting edge small nuclear reactor technologies

New York, N.Y., Jan. 13, 2025 (GLOBE NEWSWIRE) -- NANO Nuclear Energy Inc. (NASDAQ: NNE) ("NANO Nuclear" or "the Company"), a leading advanced nuclear energy and technology company focused on developing clean energy solutions, today announced that it has closed its previously announced acquisition of select nuclear energy technology assets, including the patented **Micro Modular Reactor (MMR®) Energy System** and **Pylon Transportable Reactor Platform**, from Ultra Safe Nuclear Corporation and certain of its subsidiaries (collectively, "USNC").

The acquisition of these assets and related intellectual property and contracts significantly expands NANO Nuclear's patent portfolio and adds to its existing pipeline of cutting edge small nuclear reactor technologies in development. The assets include **38 issued and pending or published patents**, including six issued and four pending or published U.S. utility patents and three issued and four pending Canadian utility patents, as well as associated trademarks.

The acquisition also brings important demonstration project collaborations related to the MMR® system, notably at the University of Illinois at Urbana-Champaign. Pending Canadian governmental approvals, the acquisition would also bring certain Canadian government relationships and support. Further, certain of the technology acquired by NANO Nuclear in this acquisition was being used by an affiliate of USNC to develop related technology in the United Kingdom, and NANO Nuclear may be able to explore a potential future license or acquisition of such related technology in the United Kingdom, which could be accompanied by U.K. government support.

NANO Nuclear paid a total of $8.5 million in cash for these assets in connection with USNC's Chapter 11 bankruptcy proceedings (including deposit amounts previously made in connection with the signing of the acquisition agreement), with $250,000 of such funds being set aside in escrow pending the receipt of certain governmental approvals of the acquisition in Canada related to the Canadian portion of the acquired assets.

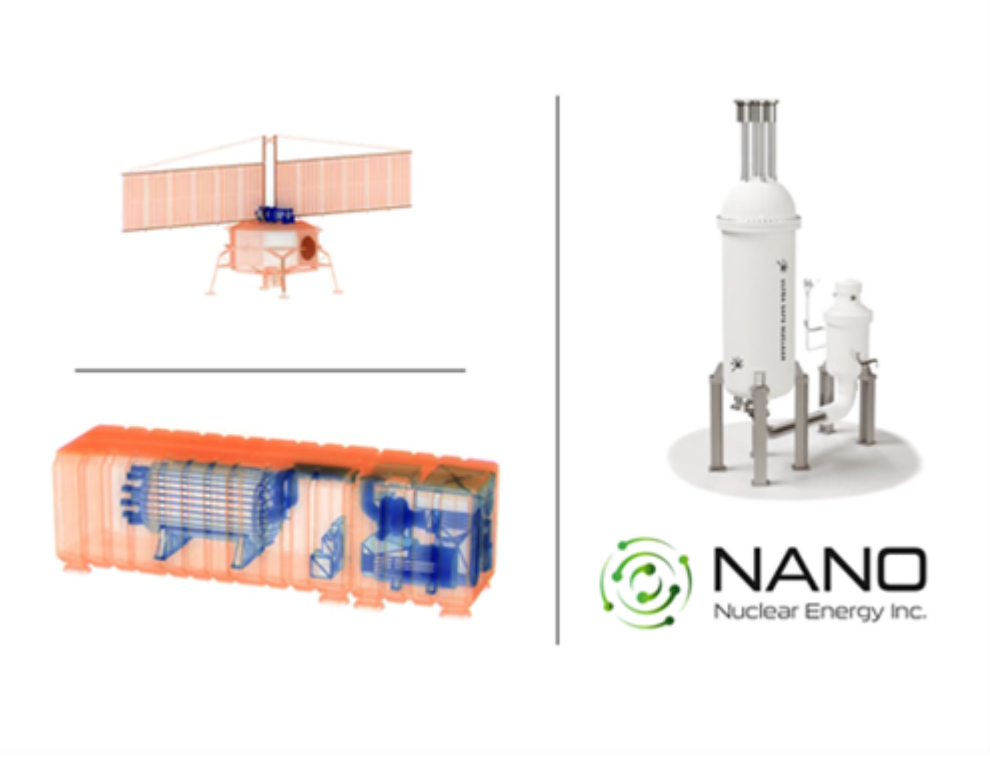

Figure 1 – Renditions of NANO Nuclear Energy's newly acquired technologies: Pylon for terrestrial (bottom) and space (top) applications and the Modular Micro Reactor (MMR®) Energy System (right).

NANO Nuclear plans to extend an existing MMR® collaboration with the University of Illinois at Urbana-Champaign with the aim of demonstrating the reactor's high technology readiness level at the University. In parallel, NANO Nuclear will continue the MMR ® licensing process with the U.S. Nuclear Regulatory Commission. Pending Canadian governmental approvals of the acquisition, further demonstrations of the MMR® are expected to take place at the Canadian Nuclear Laboratories. The MMR® is the first small modular reactor to enter the Canadian Nuclear Safety Commission's formal

licensing review.

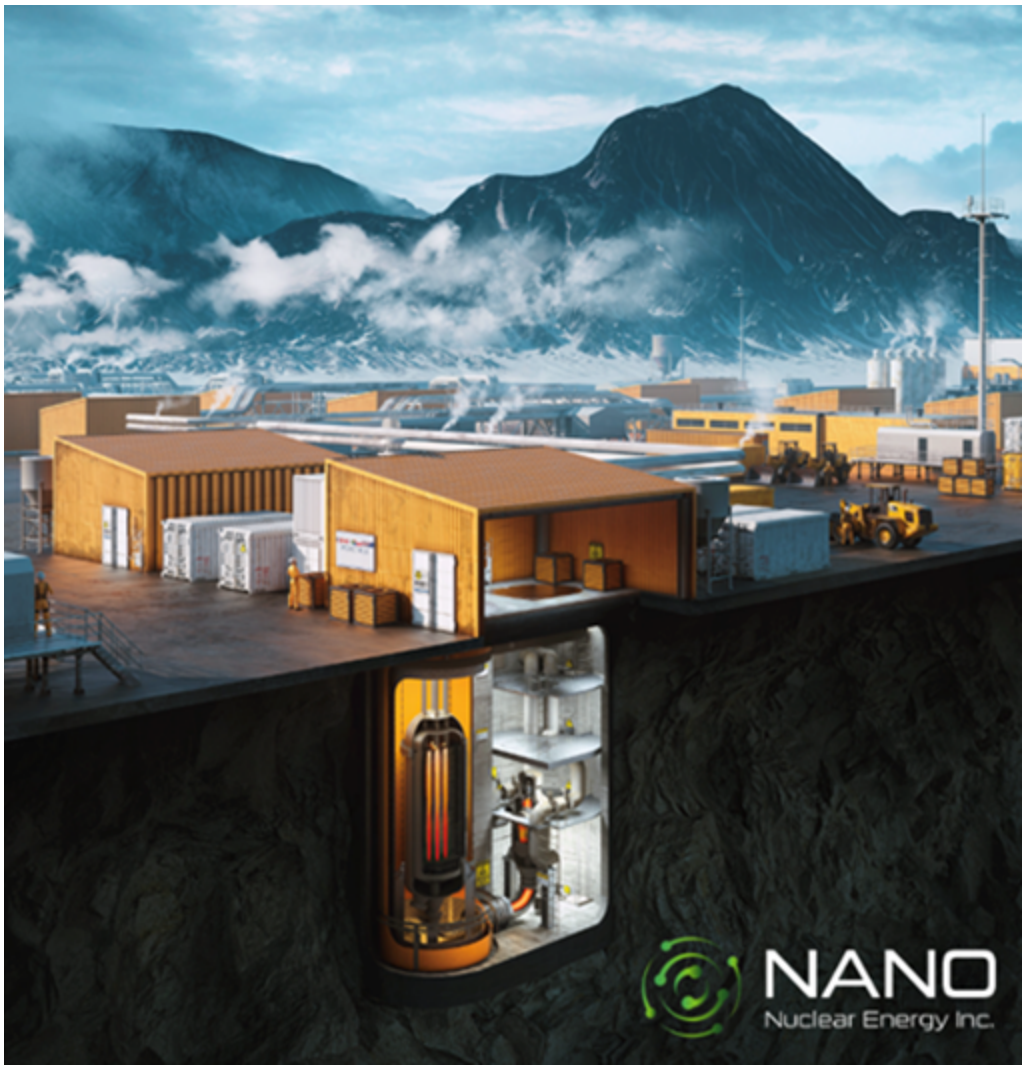

Figure 2 - Rendition of NANO Nuclear Energy's newly acquired Modular Micro Reactor (MMR®) Energy System.

The **MMR® Energy System** compliments NANO Nuclear's own **'ZEUS'** and **'ODIN'** microreactors in development and could be used to provide carbon-free, high-quality process heat for co-located industrial applications, and for high-efficiency hydrogen production. Whereas 'ZEUS' and 'ODIN' are being designed to be portable and produce 1 to 1.5 megawatts thermal ("MWth") of power, the MMR ® Energy System designed as a stationary installation capable of producing power up to 45 MWth.

The **Pylon Transportable Reactor Platform** is a portable nuclear reactor designed for versatility in application and deployment. Designed to provide between 1 MWth and 5MWth of power, it is tailored to specific applications ranging from remote terrestrial, marine, and space deployments. NANO Nuclear will continue efforts to demonstrate the reactor at the Idaho National Laboratory's DOME facility by 2027, following USNC's selection for the National Reactor Innovation Center (NRIC) Front-End Engineering program.

Figure 3 - Rendition of NANO Nuclear Energy's newly acquired Pylon reactor in terrestrial applications.

The patented MMR® Energy System and Pylon reactor will augment NANO Nuclear's existing portfolio of innovative nuclear power systems, which are designed for remote, industrial, infrastructural, maritime, and extra-terrestrial applications. The integration of the MMR® Energy System specifically will enable NANO Nuclear to better serve growing markets that have high energy demands, including large-scale data and artificial intelligence centers and other energy-intensive operations in manufacturing and infrastructure.

"We are delighted to start off the new year by completing this exciting acquisition," **said Jay Yu, Founder and Chairman of NANO Nuclear Energy.** "The addition of the patented MMR® Energy System and Pylon transportable reactor enable us to expand our business strategy and further positions NANO Nuclear as an emerging leader in the advanced nuclear reactor technology market. These technologies significantly strengthen our intellectual property foundation and create additional commercial shots on goal for us as we continue to mature our reactor technologies through design, testing and demonstration towards regulatory licensing and eventual commercial deployment."

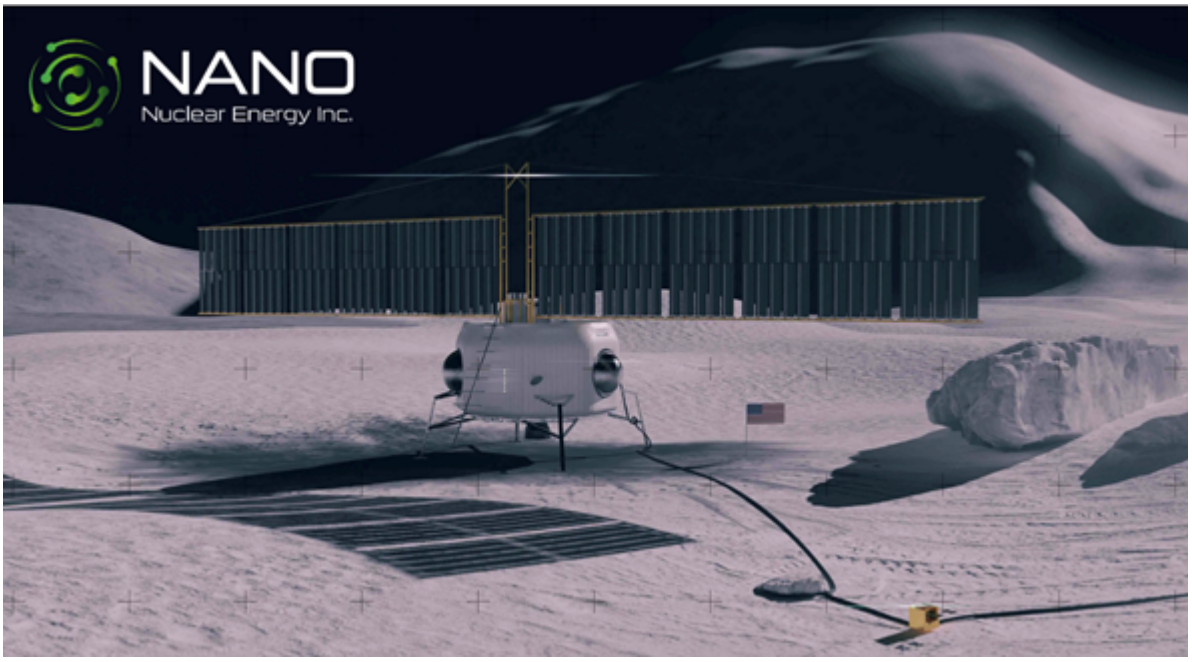

Figure 4 - Rendition of NANO Nuclear Energy's newly acquired Pylon reactor in space applications.

"The acquisition of these technologies marks another fulfillment of our strategy to add complimentary assets with key intellectual property and relationships to our company," **said James Walker, Chief Executive Officer and Head of Reactor Development of NANO Nuclear Energy.** "Their addition increases our flexibility and helps expand into new market segments, enabling us to meet the growing power requirements of sectors like large-scale data centers, which will demand substantial energy. Furthermore, the extensive patents, trademarks, and collaborations obtained through this acquisition empower us as we move forward with licensing and demonstration processes for our reactor systems. We look forward to highlighting the high technology readiness level of these newly acquired reactor technologies, which will further position NANO Nuclear as an innovator in the advanced nuclear technology sector."

To accommodate the need for certain Canadian government approvals for the acquisition and continued diligence of the USNC Canadian entity, assets and contracts to be acquired upon such approvals, Canadian entities controlled by Mr. Yu acquired the Canadian portion of the assets (other than the Canadian issued and pending patents) and granted NANO Nuclear an option to purchase those assets for nominal consideration.

Further details regarding this transaction will be provided by NANO Nuclear in a Current Report on Form 8-K to be filed with the U.S. Securities and Exchange Commission.

About NANO Nuclear Energy, Inc.

NANO Nuclear Energy Inc. (NASDAQ: NNE) is an advanced technology-driven nuclear energy company seeking to become a commercially focused, diversified, and vertically integrated company across five business lines: (i) cutting edge portable and other microreactor technologies, (ii) nuclear fuel fabrication, (iii) nuclear fuel transportation, (iv) nuclear applications for space and (v) nuclear industry consulting services. NANO Nuclear believes it is the first portable nuclear microreactor company to be listed publicly in the U.S.

Led by a world-class nuclear engineering team, NANO Nuclear's reactor products in development include **"ZEUS", a solid core battery reactor,** and

“ODIN”, a low-pressure coolant reactor, each representing advanced developments in clean energy solutions that are portable, on-demand capable, advanced nuclear microreactors. NANO Nuclear is also developing patented stationary **Micro Modular Reactor (MMR®) Energy System** and space focused **Pylon Transportable Reactor Platform.**

Advanced Fuel Transportation Inc. (AFT), a NANO Nuclear subsidiary, is led by former executives from the largest transportation company in the world aiming to build a North American transportation company that will provide commercial quantities of HALEU fuel to small modular reactors, microreactor companies, national laboratories, military, and DOE programs. Through NANO Nuclear, AFT is the exclusive licensee of a patented high-capacity HALEU fuel transportation basket developed by three major U.S. national nuclear laboratories and funded by the Department of Energy. Assuming development and commercialization, AFT is expected to form part of the only vertically integrated nuclear fuel business of its kind in North America.

HALEU Energy Fuel Inc. (HEF), a NANO Nuclear subsidiary, is focusing on the future development of a domestic source for a High-Assay, Low-Enriched Uranium (HALEU) fuel fabrication pipeline for NANO Nuclear’s own microreactors as well as the broader advanced nuclear reactor industry.

NANO Nuclear Space Inc. (NNS), a NANO Nuclear subsidiary, is exploring the potential commercial applications of NANO Nuclear’s developing micronuclear reactor technology in space. NNS is focusing on applications such as the Pylon transportable reactor system and other power systems for extraterrestrial projects and human sustaining environments, and potentially propulsion technology for long haul space missions. NNS’ initial focus will be on cis-lunar applications, referring to uses in the space region extending from Earth to the area surrounding the Moon's surface.

For more corporate information please visit: https://NanoNuclearEnergy.com/

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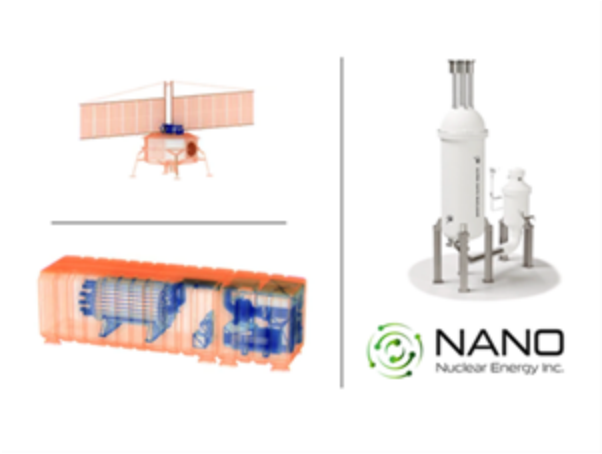
Cautionary Note Regarding Forward Looking Statements

This news release and statements of NANO Nuclear’s management in connection with this news release contain or may contain “forward-looking statements” within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. In this context, forward-looking statements mean statements related to future events, which may impact our expected future business and financial performance, and often contain words such as “expects”, “anticipates”, “intends”, “plans”, “believes”, “potential”, “will”, “should”, “could”, “would” or “may” and other words of similar meaning. In this press release, forward-looking statements include those related to the anticipated benefits to NANO Nuclear of the assets acquired from USNC as well as the prospects for required governmental approvals of the acquisition and the development and regulatory licensing of such assets. These forward-looking statements are based on information available to us as of the date of this news release and represent management's current views and assumptions. Forward-looking statements are not guarantees of future performance, events or results and involve significant known and unknown risks, uncertainties and other factors, which may be beyond our control. For NANO Nuclear, particular risks and uncertainties that could cause our actual future results to differ materially from those expressed in our forward-looking statements include but are not limited to the following: (i) risks related to our U.S. Department of Energy (“DOE”) or related state nuclear fuel licensing submissions, (ii) risks related the development of new or advanced technology and the acquisition of complimentary technology or businesses, including difficulties with design and testing, cost overruns, regulatory delays, integration issues and the development of competitive technology, (iii) our ability to obtain contracts and funding to be able to continue operations, (iv) risks related to uncertainty regarding our ability to technologically develop and commercially deploy a competitive advanced nuclear reactor or other technology in the timelines we anticipate, if ever, (v) risks related to the impact of government regulation and policies including by the DOE and the U.S. Nuclear Regulatory Commission, including those associated with the recently enacted ADVANCE Act, and (vi) similar risks and uncertainties associated with the operating an early stage business a highly regulated and rapidly evolving industry. Readers are cautioned not to place undue reliance on these forward-looking statements, which apply only as of the date of this news release. These factors may not constitute all factors that could cause actual results to differ from those discussed in any forward-looking statement, and NANO Nuclear therefore encourages investors to review other factors that may affect future results in its filings with the SEC, which are available for review at www.sec.gov and at https://ir.nanonuclearenergy.com/financial-information/sec-filings. Accordingly, forward-looking statements should not be relied upon as a predictor of actual results. We do not undertake to update our forward-looking statements to reflect events or circumstances that may arise after the date of this news release, except as required by law.

Attachment

- Figure 1

Figure 1



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Source: NANO Nuclear Energy Inc.