NANO Nuclear Energy Completes Retrofit of its New York State Nuclear Technology Testing Facility

May 7, 2025

Facility operations to commence shortly to construct and test NANO Nuclear's ALIP subsystem as well as key components of its microreactors in development

New York, N.Y., May 07, 2025 (GLOBE NEWSWIRE) -- NANO Nuclear Energy Inc. (NASDAQ: NNE) ("NANO Nuclear" or "the Company"), a leading advanced nuclear technology and energy company, today announced the completion of the retrofitting of its multimillion-dollar demonstration and testing facility in Westchester County, New York.

The facility is now ready to play a central role in supporting the non-nuclear mechanical and thermal test work necessary to develop its microreactors (in particular **ZEUS™**) and commercial products, such as its **Annular Linear Induction Pump (ALIP)**, a critical non-nuclear subsystem for liquid metal and molten salt reactor technologies which NANO Nuclear plans to separately commercialize in the coming years. Testing at the Westchester facility is expected to commence shortly and continue throughout 2025 and into the future. The data generated will contribute to the final design and integration strategy for ALIP in both terrestrial and space reactor applications.

The facility retrofit was executed in collaboration with **aRobotics Company,** a New York-based engineering and advanced fabrication firm specializing in robotic systems, component inspection, and high-precision prototyping. The firm led the mechanical build-out of the facility and the fabrication of test hardware and support structures for the development of NANO Nuclear's products, as well as NANO Nuclear's ongoing SBIR Phase III commercialization program for ALIP.

"The Westchester County demonstration facility has been completed on schedule and to specification, and we're pleased to extend our collaboration on critical ALIP components and our broader reactor portfolio with **aRobotics,** a fellow New York State headquartered company," **said Jay Yu, Founder and Chairman of NANO Nuclear.** "This multimillion -dollar facility will be central to our R&D program, giving us the resources to conduct essential physical testing and confirm that our non-nuclear systems perform at their highest level."

Figure 1 - Image of Redeveloped NANO Nuclear's Demonstration Facility for Key Components of its Nuclear Microreactor Designs in Westchester County, NY.

The newly redeveloped testing site includes:

- A **Liquid-Metal and Molten-Salt Test Loop** for evaluating fluid dynamics and pump efficiency.
- A **magnetic field mapping system** for characterizing ALIP's electromagnetic properties.
- A **custom-engineered thermal chamber** for assessing high-temperature material behavior and component resilience.

“Completing the redevelopment of this dedicated test facility is a significant milestone in our ALIP roadmap,” **said Dr. Carlos O. Maidana, Head of Thermal Hydraulics and Space Program at NANO Nuclear.** “The ability to perform real-time, high-fidelity component testing allows us to validate software models and refine system performance before moving to larger-scale assembly.”

Figure 2 - Image of NANO Nuclear’s Annular Linear Induction Pump (ALIP) Technology Model (left) and Liquid-Metal and Molten-Salt Test Loop (right).

The Westchester County demonstration facility will serve as a high-fidelity mechanical testbed for subsystems critical to reactor operation. These tests will inform future licensing, support industrial partnerships, and advance NANO Nuclear’s development, regulatory licensing and commercialization objectives. The facility now houses NANO Nuclear’s Liquid -Metal and Molten-Salt Test Loop, along with a magnetic-field mapping system that will support development and commercialization activities for ALIP. In addition, a purpose-built heat chamber, designed for evaluating reactor components and subsystems, has been installed at the site.

“This facility gives us the infrastructure to simulate core pump operations in a safe, non-nuclear setting,” **said James Walker, Chief Executive Officer of NANO Nuclear.** “It’s close proximity to our New York City corporate headquarters enhances operational coordination and will serve as a valuable hub for collaborators and stakeholders to observe the development process firsthand.”

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 patented **KRONOS MMR ™ Energy System**, a stationary high-temperature gas-cooled reactor that is in construction permit pre-application engagement U.S. Nuclear Regulatory Commission (NRC) in collaboration with University of Illinois Urbana-Champaign (U. of I.), **“ZEUS”**, a solid core battery reactor, and **“ODIN”**, a low-pressure coolant reactor, and the space focused, portable **LOKI MMR ™**, each representing advanced developments in clean energy solutions that are portable, on-demand capable, advanced nuclear microreactors.

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 **LOKI MMR ™** 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/

For further NANO Nuclear information, please contact:

Email: IR@NANONuclearEnergy.com
Business Tel: (212) 634-9206

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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 related to, among other items, NANO Nuclear's use of its new testing facility and its development and other plans in general. These and other 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 or non-U.S. 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 U.S. and non-U.S. government regulation, policies and licensing requirements, 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

- NANO Nuclear Energy Inc.

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Figure 1 - Image of Redeveloped NANO Nuclear's Demonstration Facility for Key Components of its Nuclear Microreactor Designs in Westchester County, NY.

Source: NANO Nuclear Energy Inc.