NANO Nuclear Energy Announces Milestone Ceremony to Begin Drilling Work with the University of Illinois for its Patented Flagship KRONOS MMR™ Micro Modular Reactor Energy System

October 14, 2025

Event to be held on the University of Illinois's campus on October 24, 2025

New York, N.Y., Oct. 14, 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 a milestone event highlighting important progress being made with NANO Nuclear's **KRONOS MMR** ™ research and commercial prototype at The Grainger College of Engineering at the University of Illinois Urbana-Champaign (U. of I.) on October 24, 2025.

With the global shift toward nuclear energy accelerating, NANO Nuclear is positioning itself to deliver deployable, high efficiency microreactor systems designed to meet both industrial power needs and critical humanitarian applications. The innovative KRONOS MMR ™ micro modular microreactor is currently advancing through the U.S. Nuclear Regulatory Commission's licensing process via a collaboration between NANO Nuclear and U.of I. Successful installation and operation at U. of I. will provide an unprecedented real-world demonstration of the KRONOS MMR ™ platform and serve as a model for future university, government, and commercial deployments globally.

The event will be held on the campus of the University of Illinois Urbana-Champaign (U. of I.) on October 24, 2025. NANO Nuclear is collaborating with U. of I. on the development, construction, and regulatory licensing for KRONOS MMR ™ prototype. The event is set to highlight site characterization and geotechnical activities performed by global infrastructure leader **AECOM** and serve as an essential milestone ahead of NANO Nuclear's planned submission of a construction permit application in or around the first quarter of 2026. The event is expected to feature remarks from leaders of both U. of I. and NANO Nuclear, including Jay Yu, Founder and Chairman of NANO Nuclear; James Walker, Chief Executive Officer; and Florent Heidet, Ph.D, CTO & Head of Reactor Development. In addition, representatives from federal and state governments, supply chain partners, potential major national media outlet, and organizations supporting the project are anticipated to attend. To further commemorate this important occasion and milestone, leading members of NANO Nuclear's engineering, licensing and regulatory teams, as well as members of NANO Nuclear's distinguished board of executive advisors filled with former U.S. national leaders, will also be in attendance.

Developed to meet the growing demand for resilient, modular, and clean energy solutions for artificial intelligence and data centers, industrial projects, military applications, remote communities, and other commercial applications, the KRONOS MMR ™ is a stationary, high-temperature gas-cooled microreactor designed to deliver 15 MWe (45 MWth) of carbon-free power, for multi-decade use across multiple industries and environments. Multiple KRONOS MMRs can be synergistically used to achieve any desired power level. Using meltdown-resistant TRISO fuel and passive helium cooling, the KRONOS MMR ™ is being designed to shut down and remain in a safe state automatically without any human intervention or external power (so called "walk-away safety") while seeking to ensure the ability to disconnect from the main grid and operate autonomously during outages or other disruptions (so called "full island-mode microgrid" capability).

Figure 1 - NANO Nuclear Energy Inc. to Host Milestone Ceremony Marking Progress with the University of Illinois Urbana Champaign for its Patented Flagship KRONOS MMR™ Energy System

"NANO Nuclear is gaining momentum and establishing itself as a leading micro modular reactor company not only in the United States but across North America," **said Jay Yu, Founder and Chairman of NANO Nuclear.** "This commencement of physical work is an enormous step towards the construction of our high technology readiness level and patented KRONOS MMR™, advancing our progress and bringing us closer to deploying this pivotal technology. KRONOS MMR ™, aligns with the United States' energy security objectives by enabling domestically manufactured, dispatchable, and carbon-free baseload power — essential to powering AI infrastructure, re-shoring industrial supply chains, and asserting energy independence."

The October 24th event is set to highlight site characterization and drilling activities performed by global infrastructure leader **AECOM** and serve as an essential milestone ahead of NANO Nuclear's planned submission of a construction permit application in or around Q1 2026.

“This event represents an important milestone for NANO Nuclear, underscoring our expanding role in the nuclear technology sector and reinforcing confidence in our capacity to deliver on ambitious initiatives,” **said James Walker, Chief Executive Officer of NANO Nuclear.** “We will use the AECOM drilling results to finalize our construction permit application, which we expect to submit to the Nuclear Regulatory Commission in or around the first quarter of 2026. This will position us ahead of other microreactor projects in North America and further reinforces our leadership in the race to commercialization.”

“With the continued growth of our technical team and the establishment of Illinois as our engineering and demonstration hub, we are accelerating the development and construction of a full-scale, full-power KRONOS MMR™ in collaboration with U. of I., with one of the world’s leading nuclear engineering institutions,” **said Florent Heidet, Ph.D., Chief Technology Officer and Head of Reactor Development of NANO Nuclear.** “These next steps will place us at the forefront of reactor deployment projects, enabling us to build on the momentum within the nuclear energy sector and move KRONOS MMR ™ closer to commercial adoption across North America.”

“The site characterization is an important step in our push toward installation of an advanced nuclear research reactor and expansion of the university’s global leadership in education and research through at-scale demonstration of clean, resilient energy technologies,” **said Caleb Brooks, Ph.D., Grainger College of Engineering Professor and project lead for the University of Illinois Urbana-Champaign.** “The data obtained from this field work will be used to support the construction permit application as it undergoes rigorous safety and environmental impact review by the U.S. Nuclear Regulatory Commission.”

About The Grainger College of Engineering

The Grainger College of Engineering at the University of Illinois Urbana-Champaign is one of the world's top-ranked engineering institutions, and a globally recognized leader in engineering education, research and public engagement. With a diverse, tight-knit community of faculty, students and alumni, Grainger Engineering sets the standard for excellence in engineering, driving innovation in the economy and bringing revolutionary ideas to the world. Through robust research and discovery, our faculty, staff, students and alumni are changing our world and making advances once only dreamed about, including the MRI, LED, ILIAC, Mosaic, YouTube, flexible electronics, electric machinery, miniature batteries, imaging the black hole and flight on Mars. The world's brightest minds from The Grainger College of Engineering tackle today's toughest challenges. And they are building a better, cooler, safer tomorrow. Visit https://grainger.illinois.edu for more information.

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 its lead project, the patented **KRONOS MMR ™ Energy System**, a stationary high-temperature gas-cooled reactor that is in construction permit pre-application engagement with the U.S. Nuclear Regulatory Commission (NRC) in collaboration with University of Illinois Urbana-Champaign (UIUC), **ZEUS ™**, a solid core battery reactor, and the space focused, portable **LOKI MMR ™**, each representing advanced developments in clean energy solutions that are modular, 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/

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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 new release, forward-looking statements relate to NANO Nuclear’s plans for its KRONOS MMR ™ prototype at UIUC and its development and commercial plans generally. 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 licensing submissions, (ii) risks related the development of new or advanced technology and the acquisition of

complementary 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 the May 23, 2025 Executive Orders seeking to streamline nuclear regulation, 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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Source: NANO Nuclear Energy Inc.