NANO Nuclear Energy Highlights Recent Acquisition of Key Worldwide Patent Portfolio Surrounding the Design of a Modular Transportable Nuclear Generator

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Patents recently acquired from Ultra Safe Nuclear add protections relating to NANO Nuclear's proprietary, portable and modular microreactors in development, ZEUS and ODIN as well as recently acquired KRONOS MMR and LOKI MMR reactors

New York, N.Y., Jan. 23, 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 highlighted its recently acquisition of important intellectual property pertaining to its modular microreactor technologies under development, encompassing patents granted across multiple jurisdictions.

The acquired patent portfolio includes Patent No. US 10,229,757 B2, titled "*Modular Transportable Nuclear Generator*" granted by the United States Patent and Trademark Office (USPTO) as well as related patents issued in Canada, the Russian Federation, Japan, The People's Republic of China, the Republic of Korea and by the World Intellectual Property Organization. The patents were recently acquired by NANO Nuclear in its previously announced transaction with Ultra Safe Nuclear Corp.

The patent portfolio grants NANO Nuclear additional protections surrounding its transportable, compact modular nuclear generator systems and supports variable operations with multiple core configurations and applications, including the generation of electric power and process heat. This intellectual property is expected to enhance the protections for NANO Nuclear's own proprietary advanced portable **ZEUS** and **ODIN** microreactors, as well the **KRONOS MMR™** and **LOKI MMR™** reactors, all of which are currently in development.

*Figure 1 - NANO Nuclear's proprietary advanced portable **ZEUS** and **ODIN** microreactors, as well the the **KRONOS MMR™** and **LOKI MMR™** reactors, all of which are currently in development.*

The energy systems are designed to be easily transportable and retrievable, including systems developed to passively ensure core cooling under all accident scenarios and may provide power ratings from 10 to 45 mega-watt thermal (MWt). Their design aims to reduce the balance of plant, shrinking the maximum size of the reactor by simplifying its cooling systems and decreasing the system's footprint on site.

Additionally, the patented design enables multiple microreactors to be clustered to match site-specific energy or process heat demands. Applications for these innovative energy systems range from securely powering industrial processes, such as mining, oil and gas extraction, and ship propulsion, to energizing data centers, providing residential power for remote communities, serving as microgrids for island nations, and supporting military bases with reliable, on-demand power.

"We are pleased to expand our intellectual property portfolio with these recently acquired patents, further strengthening the protections surrounding our proprietary, portable and modular microreactor technologies in development.," **said Jay Yu, Founder and Chairman of NANO Nuclear Energy.** "The addition of these patents, issued in the United States and internationally, will help to safeguard our technologies as we continue to develop, refine, and advance our nuclear energy systems toward demonstration, regulatory licensing and eventual commercialization. It also bolsters our goal of positioning NANO Nuclear as a global leader in advanced nuclear energy technology."

"I'm thrilled about the capabilities these newly acquired patents bring to our research and development efforts and the support that they provide to our technical teams as we continue the development of our various energy systems," **said James Walker, Chief Executive Officer and Head of Reactor Development of NANO.** "The addition of these patents further underscores our steadfast commitment to innovation in the advanced nuclear energy sector and emphasizes our ambition to establish NANO Nuclear as a leading, global player in advanced nuclear energy technologies. By expanding our intellectual property portfolio, we aim to bolster our capacity to develop next-generation nuclear energy solutions that address evolving market needs and drive transformative change in the industry."

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 **KRONOS MMR ™ Energy System** and space focused, portable **LOKI MMR ™**.

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 press release, forward-looking statements include, without limitation, statements regarding the anticipated benefits of the recently acquired intellectual property described herein. 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.

NANO Nuclear Energy Inc.

Figure 1 - NANO Nuclear's proprietary advanced portable ZEUS and ODIN microreactors, as well the the KRONOS MMRTM and LOKI MMRTM reactors, all of which are currently in development.

Source: NANO Nuclear Energy Inc.