NANO Nuclear Energy Contracts with GNS for Design Work to Optimize its Patented Advanced Nuclear Fuel Transportation Technology

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Scope of Work Includes Investigation into Transporting Multiple Fuel Types

New York, N.Y., Sept. 11, 2024 (GLOBE NEWSWIRE) -- NANO Nuclear Energy Inc. (NASDAQ: NNE) ("NANO Nuclear" or "the Company"), a leading advanced nuclear energy and technology company focused on developing portable, clean energy solutions, today announced it has 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 NANO Nuclear's exclusively licensed fuel transportation basket design.

The 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.

This agreement reflects the NANO Nuclear's commitment to enhancing the safety and efficiency of transporting next-generation nuclear fuels, with GNS' expertise playing a crucial role in swiftly advancing a robust, innovative, and compliant solution. GNS is the leading German specialist in solutions for the treatment and safe packaging of radioactive materials, particularly in the development, licensing and manufacturing of transport and storage casks, as well as in technology for waste processing and dismantling.

"GNS has 50 years of experience in the field of transport and storage casks for radioactive materials, particularly for various types of irradiated fuel elements," **said Daniel Oehr, Chief Executive Officer of GNS. "**We are pleased to contribute this experience into our collaboration with NANO Nuclear Energy for their front-end solutions."

The agreement's scope of work includes the conceptual design of a new HALEU transportation solution that is tailored to the particular needs of various fuel types. GNS will oversee a comprehensive study that includes a detailed description of the transportation system, bills of materials for critical components, conceptual drawings, risk assessments, and cost estimates for design, licensing, and manufacturing.

The study will be conducted under the formal NRC Quality Assurance program, ensuring compliance with regulatory standards and alignment with NANO Nuclear's long-term strategy for safe and efficient fuel transportation. The agreement also includes an option for GNS to conduct a thorough analysis of four specific fuel forms: TRISO pebbles, uranium-zirconium hydride (U-ZrHx), uranium mononitride (UN), and molten salt reactor fuel salt.

"We are excited to collaborate with GNS on this important study, which will contribute significantly to our goal of advancing nuclear fuel transportation technology" **said Jay Yu, Founder and Chairman of NANO Nuclear Energy.** "The optimized transportation system design will enhance our ability to safely transport a variety of nuclear fuel types, aligning with our mission to provide portable and adaptable clean energy solutions. Additionally, this agreement has transformative potential for the entire logistical portion of the nuclear energy industry, as a comprehensive, secure and timely transportation solution will be vital as more advanced nuclear reactors reach the marketplace and traditional reactors continue operation."



Figure 1 – Rendition of NANO Nuclear Energy Transportation System Concept Internal Components and Design

"In addition to enhancing safety and efficiency of our fuel transportation designs, this agreement with GNS represents a critical step towards our goal of achieving full self-sufficiency in transporting nuclear fuel across the country for each of our deployed microreactor systems," **said James Walker, Chief Executive Officer and Head of Reactor Development of NANO Nuclear Energy.** "By developing our own optimized transportation solutions, we are not only ensuring that we can independently manage, in a vertically integrated manner, the transport of fuel to and from our microreactors in development, but we are also positioning NANO Nuclear as a leader in providing these capabilities to the broader nuclear industry. We believe our focus on de-risking every aspect of our reactor deployment strategy means investing in in-house technology that strengthens our autonomy and reliability. This initiative will significantly bolster our ability to deliver safe, portable nuclear power solutions to remote locations, enhancing our overall value proposition and ultimately expanding our market reach."

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 four business lines: (i) cutting edge portable microreactor technology, (ii) nuclear fuel fabrication, (iii) nuclear fuel transportation and (iv) 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 products in technical development are **"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.

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.

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 or related events 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 (including statements regarding the results of the contract with GNS and the viability of NANO Nuclear's proposed transportation system as described herein) 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. 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") nuclear fuel manufacturing submission and the development of new or advanced technology, including difficulties with design and testing, cost overruns, development of competitive technology, (ii) our ability to obtain contracts and funding to be able to continue operations, (iii) risks related to uncertainty regarding our ability to technologically develop and commercially deploy a competitive advanced nuclear reactor technology, (iv) 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 (v) similar risks and uncertainties associated with the business of a start-up business operating a highly regulated 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 the 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



Source: NANO Nuclear Energy Inc.

Figure 1



NANO
Nuclear Energy Inc.

Rendition of NANO Nuclear Energy Transportation System Concept Internal Components and Design