

## Idaho National Laboratory Completes Pre-Conceptual Review of NANO Nuclear Energy's Proprietary Low-Pressure Coolant Microreactor "ODIN"

February 5, 2024

**NEW YORK, NY, Feb. 05, 2024 (GLOBE NEWSWIRE)** -- NANO Nuclear Energy Inc. ("NANO Nuclear"), an emerging microreactor and advanced nuclear technology company, led by a world-class nuclear engineering team developing proprietary, portable, and clean energy solutions, announced that **Idaho National Laboratory (INL)** has completed a pre-conceptual design review of NANO Nuclear's "ODIN" low-pressure coolant microreactor design.

Following NANO Nuclear's announcement of its Strategic Partnership Project Agreement with INL in April 2023, INL, operated by Battelle Energy Alliance under the U.S. Department of Energy, advanced its examination of NANO Nuclear's designs for its proprietary advanced microreactor "ODIN" through a panel of national laboratory engineers and scientists. The review was requested by NANO Nuclear to provide an external audit of the technical work completed to date on the "ODIN" microreactor. The review served to ensure that NANO Nuclear has thoroughly considered the necessary aspects of its design and the applicable regulations for advancing the technology towards a commercial product.

picture 1

Figure 1 -Rendering of NANO Nuclear's Proprietary Low-Pressure Coolant Microreactor "ODIN"

NANO Nuclear expects that INL will perform a similar review of its proprietary "ZEUS" microreactor in February 2024.

"Idaho National Laboratory has been instrumental in aligning our operations with the United States' energy objectives and strategic direction," said Jay Jiang Yu, NANO Nuclear Energy's Founder and Executive Chairman. "Through the laboratory's thorough evaluation of NANO Nuclear's proprietary reactor, 'ODIN', we have obtained enormously useful and valuable insights to assist our technological development. This collaboration has equipped our world-class team with essential guidance and utilized a national laboratory expertise to maintain our progress in the field of advanced nuclear reactors."

INL reviewed the technical information provided by NANO Nuclear on its reactor design, siting, fuel, and decommissioning strategy, culminating in a Panel Review Workshop to discuss every applicable area of the design and the future work required to successfully deliver an optimized and market-driven product. The review panel provided recommendations and outlined a path forward for NANO Nuclear to advance and build on the work completed by its world-class scientific team to date.

picture2

Figure 2 - Rendering of NANO Nuclear's Proprietary Low-Pressure Coolant Microreactor "ODIN"

"Working alongside Idaho National Laboratory and their team of esteemed professionals has been immensely beneficial to NANO Nuclear," said James Walker, NANO Nuclear Energy's CEO and Head of Nuclear Reactor Development. "Idaho National Laboratory is a great resource to help the development and evolution of our advanced nuclear reactors. Their recommendations will serve to both optimize our reactor designs, and ensure these developments simultaneously align with national standards and licensing requirements. The panel delivered tremendous value to us and our 'ODIN' project. The planned review of the 'ZEUS' reactor design is expected to provide that project with the same external input and direction which has so significantly benefitted 'ODIN'."

Eugene Shwageraus, Lead on 'ODIN' Reactor Engineering, said, "INL expertise in nuclear reactor technologies is unmatched. It is reassuring that INL engineers found our design concept technically sound. The entire NANO Nuclear team is grateful for the INL review panel comments and suggestions, which will be extremely valuable for our future technology development steps."

## **About Idaho National Laboratory**

Battelle Energy Alliance manages INL for the U.S. Department of Energy's Office of Nuclear Energy. INL is the nation's center for nuclear energy research and development, and also performs research in each of DOE's strategic goal areas: energy, national security, science and the environment.

For more information, visit www.inl.gov.

## About NANO Nuclear Energy Inc.

NANO Nuclear Energy Inc. is an emerging microreactor technology company seeking to become a commercially focused, diversified, vertically integrated technology-driven nuclear energy company. NANO Nuclear is led by a world-class nuclear engineering team developing smaller, cheaper, and safer advanced portable clean energy solutions utilizing proprietary novel reactor designs. 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 portable, on-demand capable, advanced nuclear microreactors. HALEU Energy Fuel Inc., 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 the broader advanced nuclear reactor industry and providing fuel to power NANO Nuclear's microreactors.

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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 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 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 (including, without limitation, the anticipated benefits of INL's review of the Company's microreactor designs as described herein) 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 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; and 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. 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.