



NANO

Nuclear Energy Inc.



Creating the Next Generation of Advanced Nuclear Fuels and Developing
Smaller, Cheaper and Safer Portable Clean Energy Solutions



November 2024

Cautionary Note Regarding Forward-Looking Statements

This presentation and statements of NANO Nuclear's management in connection with this presentation 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, plans, objectives, and goals which may impact our expected future business and financial performance, and often contain words such as "seek," "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 presentation and represent management's current views and assumptions.

Forward-looking statements are not guarantees of future performance, events or results and should not be relied upon as a predictor of actual results. Forward-looking statements involve significant known and unknown risks, uncertainties and other factors, some of which may be beyond our control. Readers are cautioned that actual results may differ materially and adversely from the results implied in forward-looking statements. 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 nuclear fuel licensing submissions, (ii) risks related the development of new or advanced technology, including difficulties with design and testing, cost overruns, regulatory delays 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 government regulation and policies including by the DOE and the U.S. Nuclear Regulatory Commission and (vi) similar risks and uncertainties associated with an early stage business operating a highly regulated and rapidly evolving industry.

Reader s are cautioned not to place undue reliance on our forward-looking statements, which apply only as of the date of this presentation. These factors may not constitute all of the factors that could cause actual results to differ from those discussed in any forward-looking statement, and we therefore encourage investors to review other factors that may affect future results in the our filings with the SEC, which are available for review at www.sec.gov and at <https://ir.nanonuclearenergy.com/financial-information/sec-filings>. We do not undertake to update our forward-looking statements to reflect events or circumstances that may arise after the date of this presentation, except as required by law.

About Us

NANO Nuclear Energy Inc. is an early-stage advanced nuclear energy technology company developing smaller, cheaper, and safer clean energy solutions.

Our development strategy is focused on four business lines, including:

- Nuclear Microreactors**
- Nuclear Fuel Fabrication**
- Nuclear Fuel Transportation**
- Nuclear Consultation Services**



Investment Thesis

NANO's objective and vision is to be a commercial and domestic energy supply leader within the U.S. nuclear industry, and to advance U.S. domestic and foreign policy and national security priorities.

Robust Business Development Pipeline For Our Cutting Edge Microreactors:



Tech Titans Fueling the Energy Race to Power AI and Datacenters

Nuclear to Meet Power Requirements for Datacenters and AI Applications:

- Microsoft, Amazon, Oracle, Nvidia and Google have mentioned and taken steps to supplement their energy requirements with nuclear
 - In 2023, Microsoft posted job listing for a principal program manager to lead the company's nuclear energy [strategy](#)
 - Constellation Energy [plans](#) to restart the Three Mile Island nuclear plant and will sell the power to Microsoft, demonstrating the immense energy needs of the tech sector as they build out data centers to support ai
 - AWS, Amazon's subsidiary in cloud computing, [announced](#) it has signed an agreement with Dominion Energy, Virginia's utility company, to explore the development of a small modular nuclear reactors, investing more than \$500 million into the project. The SMRs will be developed with technology from Maryland-based X-energy.
 - Oracle founder Larry Ellison [revealed](#) Oracle already has building permits for three small modular nuclear reactors to power its future 1 gigawatt datacenter
 - Nvidia Corp. Chief Executive Officer Jensen Huang, who helped create the technology at the heart of the explosion in artificial intelligence computing, [said](#) nuclear power is a good option for the renewable energy needed for the growing number of data centers
 - Google is [considering](#) how to bring electricity from nuclear power plants to its data centers, CEO Sundar Pichai said in an interview with Nikkei in Tokyo as the tech giant searches for ways to meet the huge energy demands of its artificial intelligence projects. Google also [announced](#) that it has made a deal with privately held Kairos Power, a California-based developer of SMRs, to support the development and construction of several reactors.



Our Proprietary Reactor Design

Introducing ZEUS – A Solid Core Battery Reactor

ZEUS is a solid core reactor made of Beryllium Oxide (BeO) moderator blocks with Uranium Dioxide (UO₂) pellets enriched up to 20%. Heat is transferred from the fuel to the secondary loop purely through conduction. The core is sealed in a vessel (it only needs to support its weight). Thermal continuity between the core and the vessel is obtained with a liquid metal bond. On March 27, 2024 we filed an application for a U.S. Provisional patent for ZEUS as a solid core nuclear reactor.



NANO Nuclear Energy Inc. has been granted the U.S. Department of Energy's (DOE) Gateway for **Accelerated Innovation in Nuclear (GAIN) Nuclear Energy (NE) voucher** award for the independent assessment of its novel heat exchanger concept for open-air Brayton cycle in collaboration with the Idaho National Laboratory (INL).



ZEUS is being developed by leading world-class experts in their field:



**Professor Peter Hosemann –
Head of Nuclear Reactor Design and Materials**



**Professor Massimiliano Fratoni –
Senior Director and Head of Reactor Design**

Our Proprietary Reactor Design

Introducing ODIN – A Low Pressure Coolant Reactor

ODIN will be a Low-Pressure Coolant Reactor, which uses relatively simple uranium and zirconium HALEU hydride fuel with up to 20% enrichment. The pellets will be encased in cylindrical fuel pins with metal cladding. These designs mirror the most common fuel types in conventional fuel design within existing reactors, providing a large experience database to help minimize the required development and testing program schedule and costs.

On October 1st, 2024 NANO Nuclear Energy Inc. requested to initiate pre-application review and engagement by the NRC staff specifically on its ODIN microreactor design. NANO intends to develop and submit its Regulatory Engagement Plan (REP) to the NRC in the fourth quarter of calendar year 2024 and is interested in beginning technical exchange discussions with the NRC staff on its ODIN microreactor design in the first quarter of calendar year 2025.



ODIN is being developed by leading world class experts in their field:



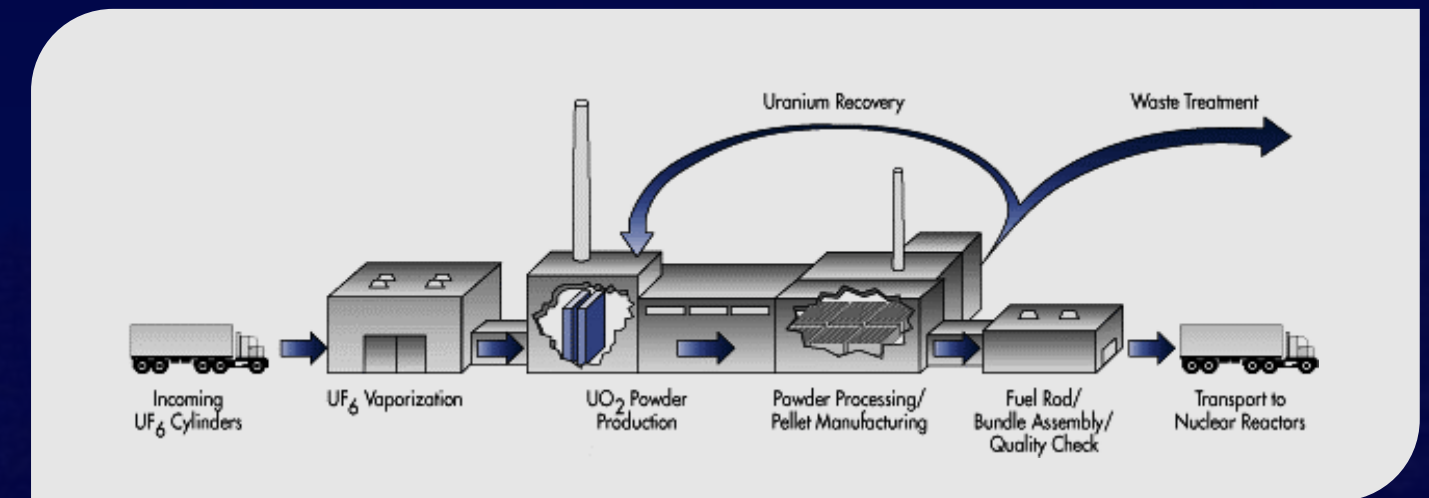
Professor Ian Farnan, NANO Nuclear Energy's Lead of Nuclear Fuel Cycle, Radiation and Materials



Professor Eugene Shwageraus, NANO Nuclear Energy's Lead of Nuclear Reactor Engineering

Fuel Processing Operations and Business

- High-Assay Low-Enriched Uranium (HALEU) addresses the challenges in fueling portable Advanced Nuclear Micro Reactors.
- NANO Nuclear has invested into LIS Technologies (LIST) to support the development of enrichment technology which addresses the enrichment bottleneck threatening to impede the deployment of all advanced reactors.
- As part of the agreement with LIST, NANO Nuclear will construct the adjoining deconversion and fuel fabrication facilities to create a complete fuel supply chain.
- NANO Nuclear will produce fuel for its own reactors and projects, U.S. industry, the National Laboratories, the Department of Energy (DoE) and the Department of Defense.
- The combined facilities will concentrate on producing diverse fuel forms required by U.S. industry and customers, utilizing enriched feedstock.



NANO Nuclear Energy - A Member of the D.O.E.'s HALEU Consortium

- Selected as a member of the U.S. Department of Energy's HALEU Consortium.
- The Consortium forms an integral component of the HALEU Availability Program and was established on December 7th, 2022, via the Energy Act of 2020.
- Aims to spur demand for additional HALEU production and private investment in the nation's nuclear fuel supply infrastructure, ultimately removing the federal government's initial role as a supplier



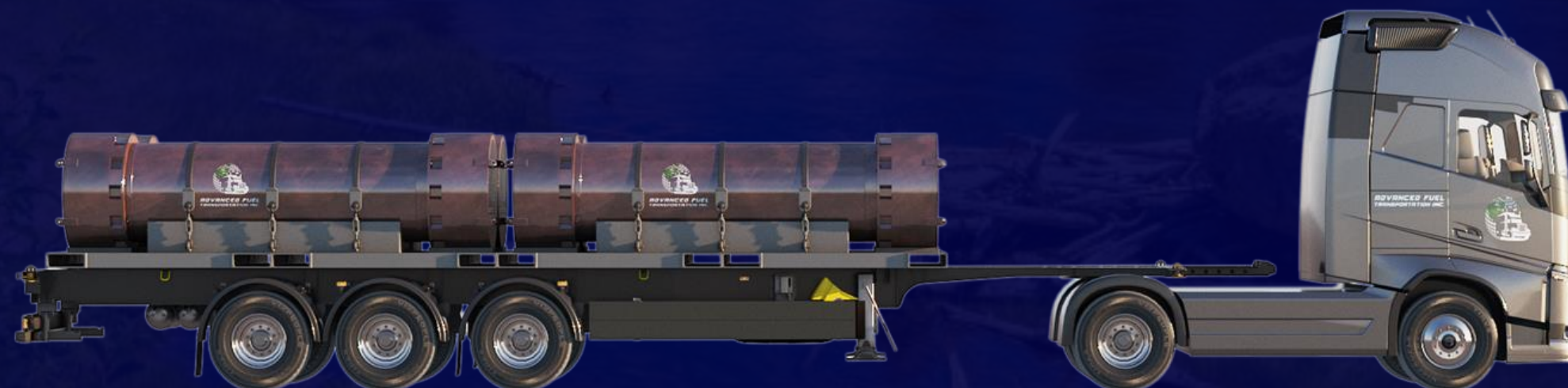
Fuel Transportation

Advanced Fuel Transportation Inc. (AFT)

- Secured exclusive licensing rights for a patent of a high-capacity HALEU fuel transport basket technology (Patent No: US 11,699,534 B2)
- The technology is developed by the U.S. Government, three National Nuclear Laboratories and funded by the Department of Energy.
- AFT intends to manufacture a licensed, high-capacity HALEU transportation system for North America.
- Led by former executives from the largest transportation company and the Department of Energy/National Laboratories
- Aims to establish a North American transportation firm with patented technologies developed by ORNL, INL, and PNNL.
- Aims to transport HALEU fuel in commercial quantities to SMR and Microreactor firms, national labs, the military, and DOE programs.



***ADVANCED FUEL
TRANSPORTATION INC.***



Consulting Services

Nuclear Regulatory Policy Development

Environmental Impact Assessments

Financial Analysis

**Plant Infrastructure Design Management
& Infrastructure Resilience**

Life Cycle Cost Analysis

Waste Management

Decommissioning

Risk Management

Technology and Innovation

Human Capital

Oak Ridge, TN Nuclear Facility

NANO Nuclear Energy Purchases Facility in Oak Ridge, Tennessee to Establish its Nuclear Technology Headquarters

- In August 2024, NANO Nuclear Energy purchased a 14,000 sq. ft. facility on 1.64-acres in Heritage Center Industrial Park in Oak Ridge, Tennessee for \$1.71 Million.
- The purchase includes a 2-story building to house NANO Nuclear's Nuclear Technology Headquarters.
- The Nuclear Technology Headquarters is near the Oak Ridge National Laboratory, the Spallation Neutron Source, the National Transportation Research Center, and The University of Tennessee's Center of Excellence in Engineering.
- NANO Nuclear expects to grow the number of personnel working at the facility over the next year and expects to ultimately employ up to 30 personnel at the facility.



Novel Nuclear Reactor Cooling Technology

NANO Nuclear Energy Acquires Novel Nuclear Reactor Cooling Technology - Annular Linear Induction Pump (ALIP)

- ❑ ALIP Technology is a key enabling technology for NANO Nuclear's 'ODIN' microreactor
- ❑ Department of Energy granted the technology over \$1.37 million in aggregate in prior phases
- ❑ NANO Nuclear will provide funding (estimated to be approximately \$350,000) and other resources necessary for achieving SBIR Phase III Award status
- ❑ NANO Nuclear's goal is to see this technology commercialized within a year, which could lead to near term revenue generation
- ❑ Physicist, research engineer and project manager Carlos O. Maidana, PhD. of Maidana Research will lead the project and will also be instrumental in growing NANO Nuclear's consulting business
- ❑ In July 2024, NANO Nuclear filed a provisional patent to secure the newly acquired ALIP technology



ALIP

Strategic Collaboration with LIS Technologies Inc.

NANO Nuclear Energy to Strategically Collaborate with LIS Technologies Inc. (“LIST”), the Only U.S.-Origin and Patented Laser-Based Uranium Enrichment Company

The collaboration intends to reinvigorate the United States’ domestic uranium enrichment and fuel fabrication capabilities and includes:

- Execution of a strategic agreement between NANO and LIST under which
 - (i) The parties will collaborate on advancing LIST’s cutting-edge enrichment technology as it continues its development and moves towards the regulatory licensing process and
 - (ii) LIST will ultimately provide NANO Nuclear with quantities of uranium hexafluoride (UF₆) fuel for use in NANO Nuclear’s advanced portable microreactors in development and for future sale by NANO Nuclear and LIST to third parties.
- As part of the agreement, NANO Nuclear will develop supportive capabilities, including deconversion and fuel fabrication facilities, that will enable LIST’s enriched UF₆ to become part of an integrated fuel manufacturing process that delivers fuel to both NANO Nuclear’s microreactor systems in development and the wider nuclear energy industry.



LIS TECHNOLOGIES INC.

ENRICHING THE FUTURE

LIST is a related party of NANO Nuclear through certain common ownership, officers and directors.

Memorandums of Understanding

HALEU Energy Fuel Inc. signed an MOU with Centrus Energy Corp., a NYSE-listed company

- ❑ Centrus providing HALEU to HALEU Energy, as needed, to support HALEU Energy's research, development, and commercialization efforts, for fuel qualification, for NANO Nuclear's initial test reactor cores and its commercial variant reactors. Verifying the compatibility of HALEU Energy's engineering and technical needs, and Centrus' technical and manufacturing capabilities to satisfy those engineering and technical needs.
- ❑ Centrus providing engineering and/or advanced manufacturing services to HALEU Energy.
- ❑ Centrus providing consulting services to HALEU Energy in the areas of fabrication, deconversion, regulatory and licensing, and transportation.



NANO Nuclear Energy and CURIO Solutions signed a MOU to Collaborate on Advanced Nuclear Fuel Recycling

- ❑ Curio Solutions is a leading advanced nuclear recycling technology developer and pioneer of the NuCycle process, which dramatically reduces nuclear waste
- ❑ The MOU marks an opportunity to optimize Curio's nuclear fuel recycling capabilities for NANO Nuclear's next-generation portable nuclear microreactors in development



NANO Nuclear Energy and Blockfusion Sign MOU, Exploring Solutions for Powering Remote AI Datacenters

- ❑ Under the MOU, NANO Nuclear will lead the technical assessment of advanced power supply systems for Blockfusion's datacenter in Niagara Falls, NY



Memorandum of Understanding: Rwanda Atomic Energy Board

NANO Nuclear signed an MOU with the Rwanda Atomic Energy Board(RAEB).

- RAEB is Rwanda's Nuclear Energy Program Implementing Organization. Its role is to promote the safe and peaceful use of nuclear energy.
- RAEB is responsible for coordinating research and development on nuclear energy in Rwanda, establish partnerships with entities in the field of nuclear energy, support nuclear energy applications, and ensure compliance with international nuclear safety and security standards

Rwanda MOU offerings:

- Establishes a framework of cooperation between NANO and the Rwanda Atomic Energy Board(RAEB) to introduce and integrate SMRs and microreactors throughout the Republic of Rwanda.
- NANO will support the development of Rwanda's entire nuclear energy ecosystem through technical assistance, training and educational programs to develop Rwanda's nuclear expertise.
- NANO, in collaboration with the Cambridge Nuclear Energy Centre, will strengthen Rwanda's educational programs to foster Rwanda's domestic nuclear energy industry.



Meet Our Senior Leadership Team And Executive Directors



Jay Yu - Founder, Executive Chairman and President

Mr. Yu is a serial and leading U.S. advanced nuclear technology entrepreneur with 20 years of capital markets experience. He is a private investor in a multitude of companies and has advised a magnitude of company executives with corporate advisory services such as capital funding, mergers & acquisitions, structured financing, corporate restructuring, and other business development services geared at taking these companies to the next level. He is a self taught and private self investor, his relentless passion for international business has helped him develop key, strategic and valuable relationships throughout the world. Mr. Yu leads the corporate structuring, capital financings, executive level recruitment, governmental relationships and international brand growth of NANO Nuclear Energy Inc. In 2021, Mr. Yu was honored as one of The Outstanding 50 Asian Americans in Business.

James Walker – BEng, MSc, CEng, CPhys, Peng – CEO, Head of Nuclear Reactor Development and Board Member

Mr. Walker is a Nuclear Physicist and was the project lead and manager for constructing the new Rolls-Royce Nuclear Chemical Plant; he was the UK Subject Matter Expert for the UK Nuclear Material Recovery Capabilities, and was the technical project manager for constructing the UK reactor core manufacturing facilities. Mr. Walker was also seconded to Rolls Royce where he modeled configurations of RR's Zero-Power reactor to inform confidence limits for the UK's successor submarine's mechanical design, and worked for the Rolls-Royce Nuclear Thermal Hydraulics Engineering team investigating reactor channel thermal performance to inform new reactor designs and support the safety case for reactors in current class submarines.



Experienced Government Relations and Nuclear Regulatory Team



David Tiktinsky - Head of Nuclear Regulatory Licensing

Mr. Tiktinsky has been an Senior Nuclear Regulatory Licensing Specialist and advisor to some of the most well known advanced nuclear technology companies in the nation. In this role, he assisted current and new applicants and licensees in licensing nuclear fuel cycle and medical isotopes facilities regulated by the Nuclear Regulatory Commission (NRC). Mr. Tiktinsky previously had 39 years of licensing and project management experience working for the NRC. He has extensive knowledge of the commercial regulatory regime and all aspects of licensing, constructing, and regulating nuclear fuel cycle and medical isotopes facilities.



Eric R. Oesterle - Head of Microreactor Regulatory Licensing

Mr. Oesterle previously had over 38 years of licensing, regulatory, project management, engineering, industrial and construction experience primarily in the nuclear power industry and at the Nuclear Regulatory Commission (NRC). He has extensive knowledge of the regulatory frameworks for licensing, construction, operation, and regulation of new reactors, small modular reactors, and advanced non-light water microreactors. His 15-year NRC career included several supervisory roles as Branch Chief for Operating Reactor Licensing, Reactor Safety Systems, License Renewal and Subsequent License Renewal.



John G. Vonglis - Executive Director of Global Government Affairs

Mr. Vonglis served as the Senate-confirmed Chief Financial Officer and Chief Risk Officer of the U.S. Department of Energy from 2017 to 2019. As CFO, John oversaw all financial matters for the Department of Energy. He was also appointed by the President as Acting Director of the Advanced Research Projects Agency-Energy (ARPA-E), a federal agency focused on advancing early-stage, high-potential, high-impact energy technologies while minimizing risk to taxpayers.

World Class Nuclear Engineering and Technical Team



Berkeley
UNIVERSITY OF CALIFORNIA
Nuclear Engineering



Professor Peter Hosemann - Head of Nuclear Reactor Design and Materials

Professor and Department Chair of Nuclear Engineering Department in UC Berkeley.



UNIVERSITY OF
CAMBRIDGE



Professor Ian Farnan - Lead of Nuclear Fuel Cycle, Radiation and Materials

Chair of Cambridge Nuclear Energy Centre, Professor of Earth & Nuclear Materials part of Department of Earth Sciences.



UNIVERSITY OF
CAMBRIDGE



Professor Eugene Shwageraus - Lead of Nuclear Reactor Engineering

Professor of Nuclear Energy Systems Engineering at the University of Cambridge Engineering Department, Dr. Shwageraus was the Head of Nuclear Engineering Department at Ben-Gurion University, Israel and Visiting Associate Professor at the Nuclear Science and Engineering Department at MIT.



UNIVERSITY OF
ILLINOIS
URBANA-CHAMPAIGN

Argonne
NATIONAL LABORATORY



OAK RIDGE
National Laboratory



Jeffrey L. Binder Ph.D. - Head of Nuclear Laboratory and Technologies

Dr. Binder has had over a 30-year career in applied energy technology as a former National Laboratory Leader and scientific contributor.

Board Of Executive Advisors



Retired 4-Star General and Former Supreme Allied Commander Wesley K. Clark, KBE – Chairman of Executive Advisory Board for Military and Defense



Retired Lieutenant General Terry Robling - Chairman of the Executive Advisory Board for Federal and Defense Appropriations and Requirements



Chief U.S. Negotiator during the North Korean nuclear crisis of 1994 Robert Gallucci , Ph.D. – Chairman of the Executive Advisory Board for Nuclear Policy



Darlene T. DeRemer - Chairwoman of Executive Advisory Board for Institutional Finance



Former Attorney General and Governor of New York Andrew M. Cuomo - Executive Advisory Board Member

Board Of Executive Advisors



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Chairman of the Executive Advisory Board for Market Intelligence**



**Wesley K. Clark
& Associates, LLC**



**Mark Nichols –
Executive Advisor for Military, Defense and Policy**



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ECONOMIC
FORUM**



**Lassina Zerbo, Ph.D. –
Chairman of the Executive Advisory Board for Africa**



**Michelle Amante-Harstine –
Senior Strategic Advisor to the Executive Advisory Board for U.S. Energy Initiatives**



**David Huckeba –
Chairman of the Executive Advisory Board for USA**

Meet Our Management and Staff



Winston Chow – MBA, MPA - Chief Policy Officer (CPO)

Mr. Chow has served as Senior Advisor to the U.S. Department of Energy on East Asia, where he implemented two US-China Agreements on clean energy between Presidents Barack Obama and Hu Jintao.



Tom Cuce - President of Advanced Fuel Transportation Inc.

Tom Cuce, former UPS President of Global Transportation has over 25 years of driving transformative supply chain solutions and profitability through strategic planning and process optimization across the global logistics and package delivery industry.



Jaisun Garcha - MBA, CPA, CGA - Chief Financial Officer

Jaisun Garcha has 20 years of experience in financial management, corporate governance, and risk management in both public and private companies, including high-growth and start-up stage organizations.



Oscar Leandro, MBA - VP of International Business

Oscar Leandro is an accomplished investment professional and entrepreneur with a robust track record in alternative investments and energy development.



NANO

Nuclear Energy Inc.



THANK YOU!

For Further Information, Please Contact:

ir@nanonuclearenergy.com

