



NANO

Nuclear Energy Inc.



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



Free Writing Prospectus Legend

This presentation relates to the proposed initial public offering ("the offering") of NANO Nuclear Energy Inc. (collectively with its consolidated subsidiaries, the "Company", "we", "us", or "our"), which highlights the basic information about the offering and the Company. Therefore, this presentation should be read together with the Company's Registration Statement on Form S-1, as amended (the "Registration Statement"), filed with the Securities and Exchange Commission (the "SEC") for the offering to which this presentation relates. The Registration Statement, dated April 10, 2024, and may be accessed through the following link: <https://www.sec.gov/Archives/edgar/data/1923891/000149315224014252/forms-1a.htm>

The Registration Statement has not yet become effective. Before you invest, you should read the prospectus in the Registration Statement (including the risk factors described therein) and other documents we have with the SEC in their entirety for more complete information about us and the offering. You may get these documents for free by visiting EDGAR on the SEC website at <https://www.sec.gov>.

Alternatively, we or our underwriter will arrange to send you the Registration Statement if you contact The Benchmark Company, LLC, 150 East 58th Street, New York, NY 20155, or by calling (212) 312-6700, or by email at prospectus@benchmarkcompany.com, or contact the Company via email: ir@nanonuclearenergy.com.

This presentation, dated April 10, 2024, supersedes and replaces in its entirety the Company's free writing prospectus filed with the SEC on April 4, 2024. To the extent of any inconsistencies between such earlier free writing prospectus and this presentation, this presentation should be relied upon.

This presentation shall not constitute an offer to sell, or the solicitation of an offer to buy, or will there be any sale of the Company's securities in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of such state or jurisdiction. The offering may only be made by means of a prospectus pursuant to a registration statement that is filed with the SEC after such registration becomes effective. Neither the SEC nor any other regulatory body has passed upon the adequacy or accuracy of this free writing prospectus. Any representation to the contrary is a criminal offense.

Cautionary Note Regarding Forward-Looking Statements

This presentation contains "forward-looking statements" that reflect our current expectations and views of future events. Significant known and unknown risks, uncertainties and other factors (including those listed under the caption "Risk Factors" in the Registration Statement) may cause our actual results, performance or achievements in the future to be materially and adversely different from those expressed or implied by the forward-looking statements. Therefore, you should not place undue reliance on forward-looking statements in this presentation.

You can identify some of these forward-looking statements by words or phrases such as "may," "will," "could," "would," "expect," "anticipate," "aim," "estimate," "intend," "plan," "believe," "is/are likely to," "potential," "project," "target," "continue" or the negative of these terms or other similar expressions, although not all forward-looking statements contain these words. The forward-looking statements in this presentation are only predictions, are subject to change, and are based largely on our current expectations and projections about future events and financial trends. Forward-looking statements include statements relating to, among other factors listed in the Registration Statement, our ability to: (i) design, develop, manufacture and sell our proposed micro nuclear reactors; (ii) develop a domestic HALEU fuel fabrication facility to supply the next generation of advanced nuclear reactors; (iii) raise the substantial amount of additional funds that will be necessary for our business to succeed, which funds may not be available on acceptable terms or available at all; and (iv) achieve all or any of the nearer and longer-term anticipated business milestones addressed herein.

Our forward-looking statements are subject to various and significant risks and uncertainties, including those which are beyond our control. The forward-looking statements made in this presentation relate only to events or information as of the date on which the statements are made in this presentation. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events.

Offering Summary

ISSUER:	NANO Nuclear Energy Inc.
Listing / Symbol	NASDAQ: NNE
Shares Offered	3,000,000
Expected Price Range	\$4.00 - \$6.00 per Share
Expected Offering Size	\$15,000,000 (approximately \$13.3 million, after deducting estimated offering expenses)
Post-Offering Shares Outstanding:	29,007,015 shares of common stock
Over-allotment Option:	15%
Use of Proceeds	<ul style="list-style-type: none">• Approximately \$9.0 million for the research and development of products and technology, including design optimization, test work and scoping studies;• Approximately \$1.6 million for marketing and promotion, and business development activities; and• Approximately \$2.7 million for working capital and other general corporate purposes, including regulatory compliance, intellectual property protection, additional employee hires and additional contractor retainment.
Book-Running Manager	The Benchmark Company, LLC

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





Our mission is to become a commercially focused, diversified and vertically integrated technology-driven nuclear energy company that will capture market share in the very large and growing nuclear energy sector, initially in the U.S. but ultimately in international markets.

Investment Highlights

- ❑ \$13.9 Million raised to date from investors with significant transportation and nuclear industry expertise
- ❑ World-class technical team, experienced public company management and high-profile advisory board
- ❑ High-placed government contacts
- ❑ Market trend toward sustainability & clean energy
- ❑ Industry with significant barriers to entry
- ❑ Nuclear energy is a “green” priority for the government

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:



Microreactors

Nuclear is getting smaller... and it's opening up some big opportunities for the industry.

Imagine enough power to support over 1,000 homes per NANO Nuclear reactor for up to 20 years.

Nuclear microreactors can address various environmental and energy challenges through their innovative design and capabilities, such as:

- Electricity Emissions
- Industrial Sector Emissions
- Transportation Emissions
- Water Scarcity
- Energy Access to Remote Locations
- Space Exploration
- Data Centers
- Emergency Responses



- Factory fabricated
- Transportable



- Seamlessly integrable with renewables within microgrids

*Artist rendition of a prototype design.
May not represent eventual design of revolutionary NANO 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.



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



Professor Peter Hosemann –
Head of Nuclear Reactor Design and Materials



James Walker BEng, MSc, CEng, CPhys, PEng –
CEO and Head of Nuclear Reactor Development

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.



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



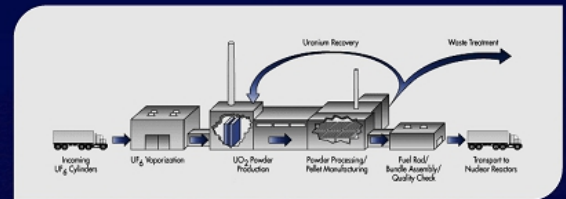
Professor Eugene Shwageraus, NANO Nuclear Energy's Lead of Nuclear Reactor Engineering

HALEU Fuel Fabrication Facility

- High-Assay Low-Enriched Uranium (HALEU) addresses challenges in fueling portable Advanced Nuclear Micro Reactors.
- NANO Nuclear plans to establish a nuclear fuel fabrication facility serving advanced reactor companies, its own projects, the U.S. industry, National Laboratories, and the Department of Energy (DOE).
- The Company plans to construct a fuel fabrication facility in cooperation and close to the Idaho National Laboratory (INL) site.
- The facility will concentrate on producing diverse fuel forms required by U.S. industry and customers, utilizing enriched feedstock.
- Integration with INL will enhance capabilities, such as fuel characterization.

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 and cask 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.**



Memorandum of Understanding - Centrus Energy Corp. (NYSE: LEU)

- HALEU Energy Fuel Inc. signed an MOU with Centrus Energy Corp., a NYSE-listed company.
 - Centrus Energy is an established supplier of nuclear fuel/services to the nuclear power industry.
 - Since 1998, Centrus has supplied utilities with fuel for over 1,750 reactor years.
 - The fuel provided is the coal equivalent of 7 billion tons.

The areas of potential collaboration between the two parties are:

1. 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.
2. Verifying the compatibility of HALEU Energy's engineering and technical needs, and Centrus' technical and manufacturing capabilities to satisfy those engineering and technical needs.
3. Centrus providing engineering and/or advanced manufacturing services to HALEU Energy.
4. Centrus providing consulting services to HALEU Energy in the areas of fabrication, deconversion, regulatory and licensing, and transportation.



Joint Venture with the Cambridge Nuclear Energy Centre

Nuclear Career Development Program

- NANO will benefit from having a First Right of Refusal to hire students from the direct Pool of Cambridge Graduates
- NANO will benefit from directly funded Undergraduate, Graduate and Postdoctoral students to work on designated projects. Students gain real world working experience and knowledge.
- Massive nuclear skills shortage in the USA, UK and globally already widely felt
- Takes many years to develop undergrads → early career researchers

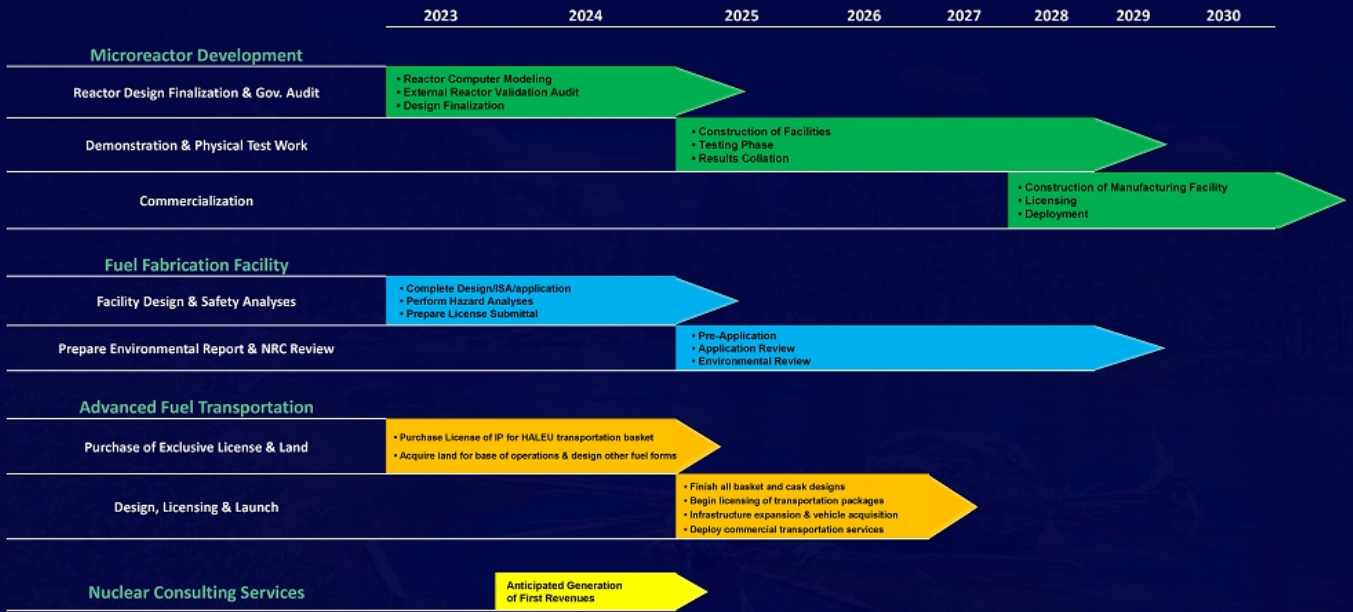
Cambridge value proposition:

- Comprehensive training at all levels, backed by existing programmes
- Undergraduate teaching and projects, shared across departments
- Nuclear Energy masters course, 11 cohorts, >150 graduates so far
 - Covers engineering, policy, business → Nuclear Leaders of Tomorrow
 - Close ties with industry, projects, visits, internships
- Centre for Doctoral Training (CDT)
 - Experimental, computational, theoretical research at PhD level across disciplines
- Main challenge: retaining key personnel at senior post-doc level (this proposal)
 - Provide environment for researchers to take key leadership position in industry



Cambridge
Nuclear
Energy
Centre

Anticipated Development Schedule



Nearer Term Anticipated Milestones and Catalysts

While we believe that an investment in NANO Nuclear represents a longer-term value proposition, we will be working hard over the nearer term to drive the value of our company

- Early 2024, Idaho National Laboratory completed its pre-conceptual reviews of our ZEUS and ODIN microreactors.
- During 2024, we expect to be able to announce expansions to our intellectual property portfolio.
- During 2024, we will look to acquire land for our HALEU transportation base of operations.
- During 2024, we will look to acquire land for the first CAT II non-TRISO HALEU fuel fabrication facility in the U.S.
- By the end of 2024, we anticipate generating initial revenues from our nuclear consulting services.
- During 2024-2026, we will look to complete additional demonstration and physical test work for our ZEUS and ODIN microreactors, with the goal of assembling the prototypes of both reactors.
- During 2024 and 2025, we also plan to explore potential commercial collaborations with companies in mining and technology industries as they may look to power their operations using advanced nuclear solutions.

Intellectual Property

- On April 3rd, 2024, NANO Nuclear Energy was issued an exclusive patent license for a high-capacity HALEU transportation IP package which includes design for the basket and cask technology (**License No. 23-LA-132, Patent No: US 11,699,534 B2**). NANO Nuclear's transportation business will build on existing work completed at Idaho National Laboratory (INL), Oak Ridge National Laboratory (ORNL) and Pacific Northwest National Laboratory (PNNL), the world's premier U.S.-backed nuclear research facilities.
- On March 27th, 2024, we filed an Application for a U.S. Provisional patent – "ZEUS", which is a Solid Core Nuclear Reactor.
- We expect to file a utility or design patents for ZEUS and ODIN microreactors before March 27th, 2025.

Capitalization Table & Financial Highlights

	Pro Forma Pre-Offering
Common shares	26,007,015
Stock Options (WAEP: \$2.26)	4,132,000

Balance Sheet	As of December 31, 2023	Pro Forma as Adjusted*
Cash and Cash Equivalents	7,897,499	21,557,499
Total Liabilities	443,306	443,306
Total Deficit	(8,596,170)	(8,596,170)
Total Stockholders' Equity	2,801,139	21,331,139

* On a pro forma as adjusted basis to give effect to our issuance and sale of 3,000,000 shares of our common stock in this offering at the assumed initial public offering price of \$5.00 per share (the midpoint of the estimated price range set forth on the cover page of the IPO prospectus), after deducting underwriting discounts and estimated offering expenses payable by us.

Selected Nuclear Energy Public Companies

Name	Market Cap	Ticker	Business
Duke Energy Corp.	\$74B	NYSE: DUK	Nuclear Energy Producer
Exelon Corp.	\$37B	NASDAQ: EXC	Nuclear Energy Producer
Entergy Corp.	\$22B	NYSE:ETR	Nuclear Energy Producer
Cameco Corp.	\$18B	NYSE: CCJ	Designs small modular reactors (Acquisition of Westinghouse)
Brookfield Renewable Partners L.P.	\$15B	NYSE: BEP	Designs small modular reactors (Acquisition of Westinghouse)
Vistra Corp.	\$23B	NYSE: VST	Nuclear Energy Producer
BWX Technologies, Inc.	\$9B	NYSE: BWXT	Nuclear Component & Fuel Supplier to USA
Fluor Corporation	\$7B	NYSE: FLR	Provides technical & project expertise to Gov. agencies like the DOE and NNSA
EnPro Industries, Inc.	\$3B	NYSE: NPO	Nuclear Energy Producer
Energy Fuels Inc.	\$1B	NYSE: UUUU	Designs and markets small modular reactors
NuScale Power Corp.	\$975M	NYSE: SMR	Development of light water SMRs
Centrus Energy	\$645M	NYSE: LEU	Uranium Enrichment using Centrifuge technology

Recent Momentum in M&A Transactions on Wall Street

NuScale Power Completes SPAC Merger with Spring Valley Acquisition Corp.

NuScale to Create World's First and Only Publicly Traded Provider of Transformational Small Modular Nuclear Reactor Technology

The Business Combination is expected to have an enterprise value of **\$1.9 B**

Cameco and Brookfield Renewable join forces to acquire Westinghouse

Brookfield Renewable, with its institutional partners, will own a 51% interest in Westinghouse and Cameco will own 49%

The total enterprise value for Westinghouse is **\$8 B**

X-energy raised \$235M in recent Series C Financing

X-energy, Ares drop merger plan, pre-money equity value was revised to USD1.8 billion
X-energy Finalizes \$235 Million Series C Financing

Raised \$235M in Series C Financing pre-money valuation of **\$1.8 B**

Oklo to go Public in Sam Altman's SPAC, CEO of OpenAI - AltC Acquisition Corp

Super Investor Sam Altman's Interests Collide in a Nuclear Merger (Pending)

The SPAC deal values the nuclear startup at **\$1.4 B**

Meet Our Senior Leadership Team And Executive Directors



Jay Yu - Founder, Executive Chairman and President

Mr. Yu is a serial entrepreneur and has over 16 years of capital markets experience on wall street. He is a private investor in a multitude of companies and has advised a magnitude of private and public company executives with corporate advisory services such as capital funding, mergers & acquisitions, structured financing, IPO listings, and other business development services geared at taking these companies to the next level. He is a self taught and private self investor, and 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.

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 Argonne
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



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



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



Mark Nichols -
Executive Advisor for Military, Defense and Policy



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.



Wayne Hao, MBA - VP of Corporate Development

Wayne Hao is a seasoned international executive with over 20 years of global experience in entrepreneurship, corporate growth, and business development.

Conclusion

Strategic Direction:

- NANO Nuclear Energy Inc. is poised to make significant contributions to the nuclear energy sector with its innovative reactor designs and focus on sustainability.
- The Company's strategic investments in fuel fabrication and transportation infrastructure position it to address key challenges in the advanced nuclear reactor market.
- Its leadership and advisory teams bring a wealth of experience and strategic relationships that can accelerate the Company's growth and market penetration.

Market and Financial Outlook:

- The initial public offering and subsequent investments in R&D and market expansion are expected to further solidify NANO Nuclear's position in the nuclear energy market.
- Collaborations with industry partners and participation in government programs underscore the Company's commitment to advancing nuclear energy technologies.
- NANO Nuclear is strategically positioned to contribute to the global transition towards clean and sustainable energy solutions, leveraging advancements in nuclear technology for commercial and domestic applications.

Investor Contact

Jay Yu
Founder, Executive Chairman and President
Email: ir@nanonuclearenergy.com
Phone: (212) 634-9206



Thank You