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NANO Nuclear Energy Inc.

NASDAQ:NNE
Prev. Close: $35.67 as of 01-16-2026
Industry: Advanced Nuclear & Microreactor Development
Target Price: $48.00 (34.57% Upside)
Recommendation: BUY

EXECUTIVE SUMMARY

Figure 1: Financial Summary

Source: Yahoo Finance, Team Analysis

Reccomendation	BUY
Valuation Date	01.16.2026
Current Price*	35.67
Target Price	48.00
Upside	31.47%
Shares Outstanding	50,250,000
52 Week High	60.87
52 Week Low	17.26
Market Cap	$ 1,792,417,500

**Closing Price as of 01.16.2026*

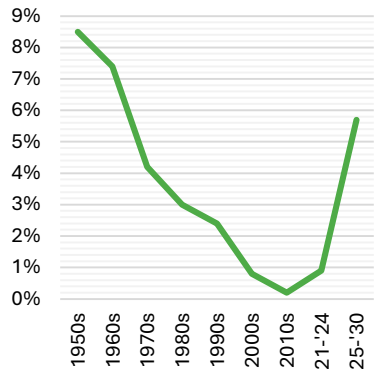
We initiate coverage on NANO Nuclear Energy Inc. (NASDAQ:NNE) with a **BUY** recommendation relative to a 12-month price target of **$48.00**. This represents an upside of **34.57%** from the most recent close price of **$35.67** on **01-16-2026 (Figure 1)**. This valuation was reached through a DCF model supported by a monte carlo python simulation. NANO is an emerging advanced nuclear technology company developing it's next-generation KRONOS MMR microreactor and a fully integrated HALEU fuel and logistics ecosystem. The company aims to "democratize nuclear energy" by delivering modular, portable, and cost-efficient microreactors capable of deployment across diverse climates, remote communities, military defense applications, and AI data-centers. We believe NANO is positioned as a leading microreactor developer approaching commercialization at a time when global demand is accelerating for clean, secure, and transportable baseload energy solutions.

Strong Demand For Clean, Reliable Energy Favors Microreactors

Over the past 20 years, U.S. electricity demand has remained largely flat, with annual growth below 1%. This trend is expected to reverse, with demand projected to increase to approximately 5.7% by 2030 **(Figure 2)**, driven by AI data centers and electrification needs. This shift materially increases demand for reliable baseload power, which intermittent renewables cannot provide alone. NANO's KRONOS MMR directly addresses this gap by delivering scalable, transportable, zero-emissions energy, positioning microreactors as an economically viable complement to renewables and supporting NANO's long-term outlook.

Figure 2: Energy Use Growth

Source: Grid Strategies

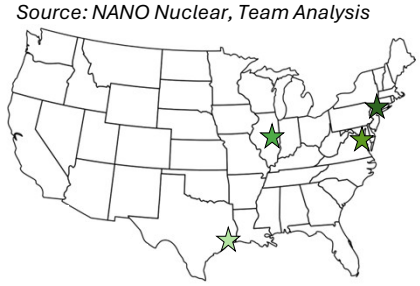


KRONOS Is Commercial-Ready And Poised for Strategic Partnership

NANO's first-of-a-kind KRONOS MMR microreactor is currently in development at the University of Illinois, with initial operations targeted for late 2029, representing a key commercialization and technology milestone. Built on proven nuclear engineering foundations, KRONOS is designed for high-reliability, scalable, off-grid applications including AI data centers, military bases, remote communities, and mining operations. NANO has feasibility studies with Barupon in Texas for 1 GW of data center power and Joint Base Anacostia–Bolling, validating both commercial and defense use cases, proving NANO is poised for more partnerships.

Figure 3: NANO Key Sites

Source: NANO Nuclear, Team Analysis

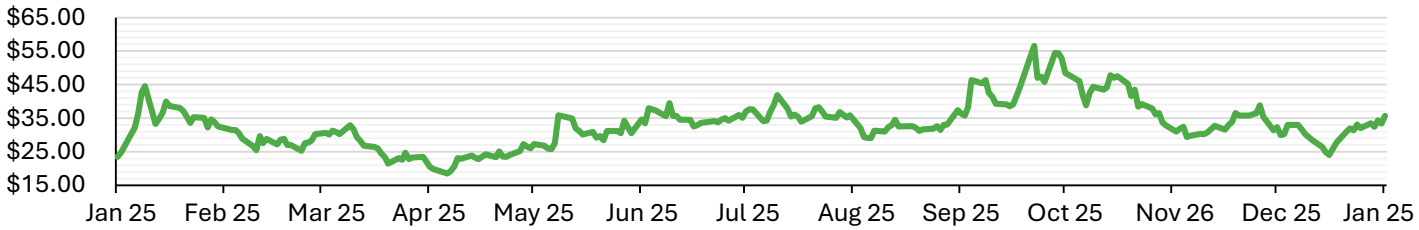


- Joint Base Anacostia-Bolling
- University of Illinois UC
- BaRupOn LAMP
- NANO Headquarters

Driven Leadership Focused On Long-Term Value Creation

In a pre-revenue company such as NANO, management quality is a key driver of long-term shareholder value. The leadership team has demonstrated a disciplined, value-driven approach to capital allocation, including the acquisition of a 5% stake in LIS Technologies, a uranium enrichment firm, and an active M&A strategy focused on fuel transportation and supply-chain completion. NANO's executive team brings deep experience across advanced nuclear, defense, and energy infrastructure, while its military- and government-experienced advisory board enhances credibility, partnership access, and execution capability.

Figure 4: NNE 1-Year Stock Performance



BUSINESS DESCRIPTION

Figure 5: Capacity Factor By US Energy Source

Source: ITIF

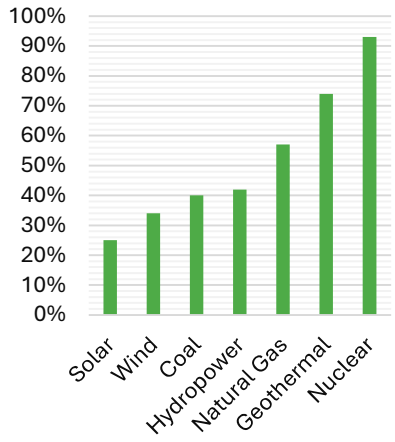


Figure 6: KRONOS End Market Exposure Breakdown 2050

Source: Team Analysis

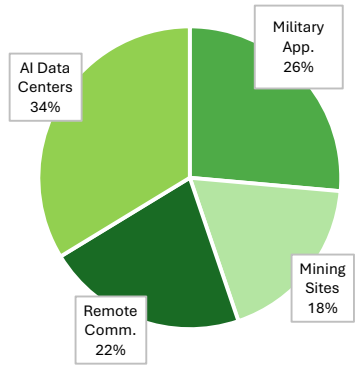


Figure 7: Total Energy Investment, EU (in $B)

Source: Reuters

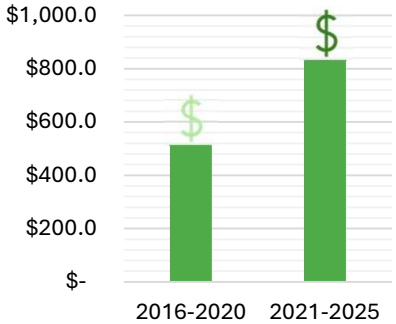
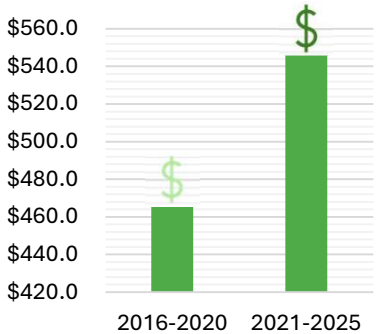


Figure 8: Total Energy Investment, US (in $B)

Source: Reuters

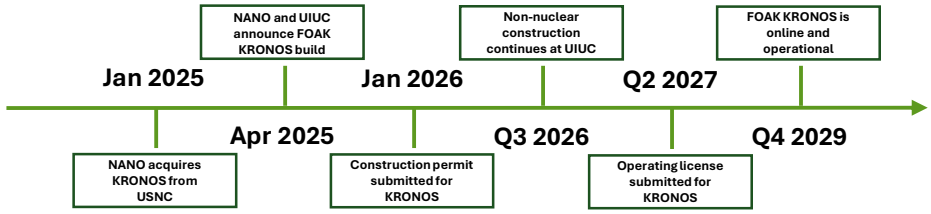


NANO Nuclear Energy Inc. (NASDAQ: NNE) is an early-stage U.S. developer of advanced microreactor technology focused on commercializing its first-of-a-kind KRONOS reactor. The company aims to build a diversified, vertically integrated microreactor and energy platform delivering portable, cost-efficient nuclear power. As the first publicly listed pure-play microreactor company in the U.S., NANO benefits from early-mover visibility in a sector driven by defense, government, and commercial demand.

Microreactor Technology & KRONOS MMR Overview

Microreactors are small, factory-fabricated nuclear systems designed to deliver reliable, carbon-free baseload power in remote, off-grid, or high-reliability applications where traditional generation is impractical **(Figure 5)**. NANO's KRONOS MMR microreactor is a 15 MWe high-temperature gas reactor utilizing TRISO fuel and passive safety features, enabling inherent safety, transportability, and modular deployment for customers such as data centers, military installations, remote communities, and industrial sites **(Figure 6)**. KRONOS was acquired from USNC, which invested over a decade and $120 million in its development, allowing NANO to obtain a mature design at a highly asymmetric entry cost. The first-of-a-kind KRONOS deployment is planned at the University of Illinois Urbana-Champaign **(Figure 3)** and will follow a Part 50 NRC licensing pathway, with a construction permit targeted for early 2026 and commercial operation expected by late 2029. Following the prototype, NANO intends to transition future deployments to the Part 52 framework to improve scalability and regulatory certainty.

FOAK KRONOS MMR Reactor Regulatory/Commercialization Timeline



Business Overview

NANO's business model is built around two primary monetization pathways: long-term power purchase agreements (PPAs) and technology licensing. Under the PPA model, NANO retains ownership of the KRONOS microreactor and sells electricity directly to customers under 20–30-year contracts, providing stable, recurring revenue with high visibility. Management has indicated target pricing in the range of conventional baseload alternatives, with expected gross margins of 60–80% once units reach scale, reflecting low fuel costs and high-capacity factors. In parallel, NANO plans a licensing model for select customers capable of financing and operating reactors themselves, generating upfront licensing fees and ongoing royalties while limiting balance sheet intensity. This dual-model approach provides flexibility to serve infrastructure-style customers seeking long-term power certainty and sophisticated counterparties focused on ownership, enabling NANO to optimize capital allocation and accelerate commercialization as KRONOS progresses through NRC licensing.

Strategic Positioning

NANO is an early mover in the microreactor market as demand for reliable, carbon-free baseload power accelerates across data centers, defense, and industrial applications. Advancing KRONOS through the U.S. NRC licensing process positions the company for first-mover advantages and durable regulatory barriers. An initial Part 50 pathway de-risks FOAK deployment, with a planned transition to Part 52 enabling scalable commercialization. A potential second deployment in Canada, supported by alignment between the CNSC and NRC, extends this advantage internationally. KRONOS's use of LEU+ fuel differentiates NANO from peers constrained by HALEU supply risk. Combined with monetization via long-term PPAs and licensing, NANO is positioned to capture share in high-value, critical markets.

Figure 9: Europe's Natural Gas Import Dependence

Source: EuroStat

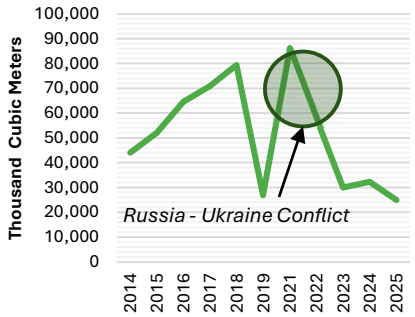


Figure 10: European Natural Gas Prices

Source: International Energy Agency

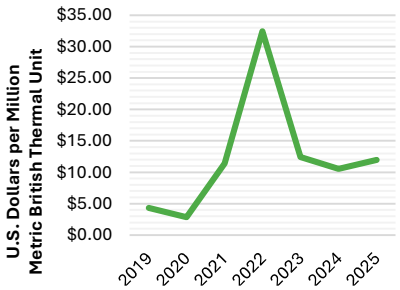


Figure 11: Electricity vs. Natural Gas Consumption

Source: International Energy Agency

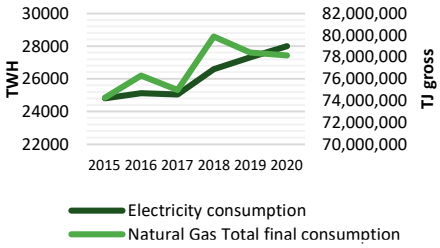


Figure 12: Projected US Data Center Power Demand

Source: McKinsey

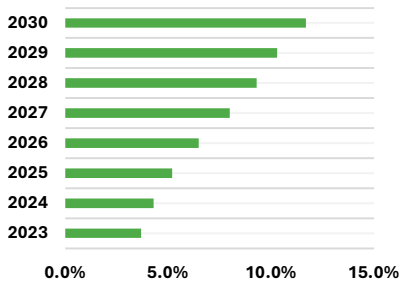
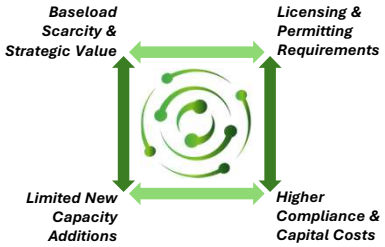


Figure 13: Regulatory Issues Shape Nuclear Energy Supply

Source: Team Analysis



Historically, global nuclear generating capacity saw limited growth for decades, remaining roughly flat at 390–400 GW as major economies faced construction delays, regulatory complexity, and the retirement of aging reactors. Despite these headwinds, nuclear energy is now positioned to drive long-term growth in electricity generation, supported by capacity factors near 90% **(Figure 5)**, well above those of wind and solar. Recent industry forecasts indicate a renewed expansion of nuclear power, driven by rising demand for reliable, low-emission electricity, increased investment **(Figure 7/8)**, and stronger policy support. The International Energy Agency projects unprecedented nuclear growth through 2035–2050 **(Figure 2)** and beyond under current policy assumptions. Reflecting this momentum, industry groups point to the potential for nearly tripling global nuclear capacity by 2050, contingent on sustained policy and investment support, reinforcing nuclear's role in delivering stable, secure global energy systems.

Energy Security & Geopolitics – POSITIVE

Global nuclear capacity was largely stagnant for decades at roughly 390–400 GW, constrained by construction delays, regulatory hurdles, and reactor retirements. Despite these challenges, nuclear energy is re-emerging as a key driver of electricity growth, supported by capacity factors near 90%, far exceeding wind and solar. Industry forecasts now point to a sustained nuclear expansion, driven by demand for reliable, low-emission power, rising investment, and stronger policy support. The International Energy Agency projects significant capacity growth through 2035–2050 under current policies, with industry estimates suggesting global nuclear capacity could nearly triple by 2050, reinforcing nuclear's role in stable, secure energy systems. **(Figure 11)**

Power Demand Growth & Electrification Needs – POSITIVE

Global electricity demand is entering a structurally higher growth phase as transportation, buildings, and industry increasingly electrify in pursuit of decarbonization and efficiency goals. The International Energy Agency projects global electricity demand will grow at a 2–3% CAGR through 2035, materially outpacing total final energy demand growth of roughly 1% and reflecting a fundamental shift in energy consumption. This transition represents a lasting transfer of demand from fossil fuels to power grids, adding approximately 5,000–7,000 TWh of global electricity demand by 2035 **(Figure 11)** and driving sustained growth in both baseload and peak load requirements, increasing the need for reliable, non-intermittent generation capacity.

AI, Data Centers & Baseload Scarcity – STRONGLY POSITIVE

The rapid expansion of artificial intelligence and cloud computing is driving a step-change in electricity demand, as large-scale data centers require continuous, high-load power with minimal tolerance for outages. Unlike traditional demand growth, AI-driven infrastructure operates on a 24/7 basis, creating sustained baseload requirements that are poorly matched with intermittent generation such as wind and solar. McKinsey projects U.S. data center electricity consumption could increase 2–4x by the end of the decade **(Figure 12)**. As highlighted by International Energy Agency projections, this surge in data center demand is intensifying baseload scarcity and materially increasing the strategic value of reliable, always-on generation sources such as nuclear energy.

Regulatory & Political Environment – POSITIVE

The regulatory and political environment for nuclear energy has improved materially as governments increasingly align energy security and decarbonization objectives across key markets, including the United States, Europe, and Canada. In response to rising electricity demand and heightened geopolitical risk, policymakers have **expanded support for nuclear** through streamlined licensing initiatives, financial incentives, and formal recognition of nuclear as a clean or strategic energy source, including the U.S. Inflation Reduction Act and Janus Program, the EU sustainable finance taxonomy, and Canada's federal support for small modular reactor development. While regulatory complexity and lengthy permitting timelines remain **(Figure 13)**.

COMPETITIVE POSITIONING

Figure 14: KRONOS Unit Deployment Schedule

Source: Team Analysis

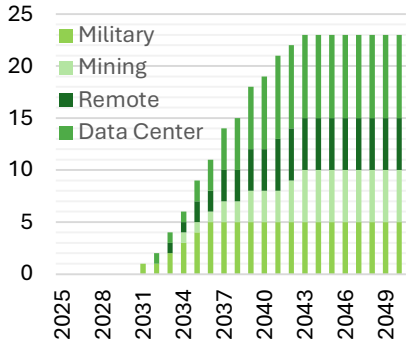
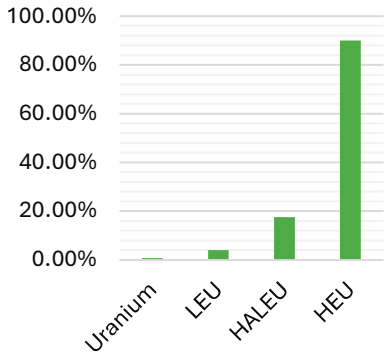


Figure 15: U Enrichment Levels In Reactor Fuel

Source: Team Analysis



Regulatory & First-Mover Advantage

NANO's competitive positioning is defined by its progress toward licensing one of the first commercial microreactors in North America **(Figure 14)**, a hurdle that represents the primary bottleneck for the industry. Through the acquisition of KRONOS from USNC, NANO obtained a reactor design with over a decade of prior engineering work, materially accelerating its regulatory timeline versus peers. By advancing its first deployment through the NRC under a Part 50 pathway and transitioning to Part 52 for scale, NANO is de-risking FOAK deployment while establishing regulatory precedent that later entrants will need to follow.

Fuel Strategy & Supply Chain Differentiation

NANO is structurally differentiated from competitors through its ability to deploy KRONOS using LEU+ fuel, avoiding the HALEU supply constraints facing many advanced nuclear developers **(Figure 15)**. This flexibility reduces geopolitical exposure, lowers fuel availability risk, and supports earlier deployment timelines. In parallel, NANO's focus on fuel handling and nuclear transportation strengthens control over critical parts of the supply chain. As fuel access increasingly determines which projects can move forward, this strategy positions NANO to commercialize ahead of peers with more constrained fuel requirements.

Targeted Market Focus & Flexible Monetization

NANO differentiates itself by targeting non-traditional nuclear customers where reliability, security, and energy sovereignty are valued over marginal power costs. While many competitors focus on utility-scale deployment, NANO's dual monetization model—combining long-term PPAs with technology licensing—provides flexibility to meet customer needs while optimizing capital intensity. This approach allows NANO to secure infrastructure-like recurring revenue or pursue capital-light expansion through licensing, giving it a strategic advantage in capturing early market share as microreactor adoption evolves.

INVESTMENT SUMMARY

Figure 16: NANO PPA Revenue 2025-2050 (in $M)

Source: Team Analysis

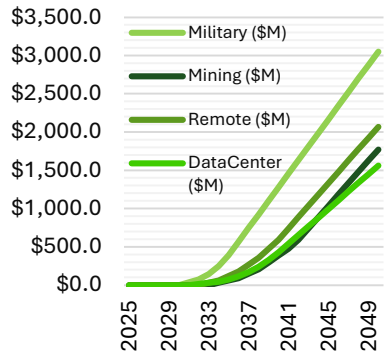
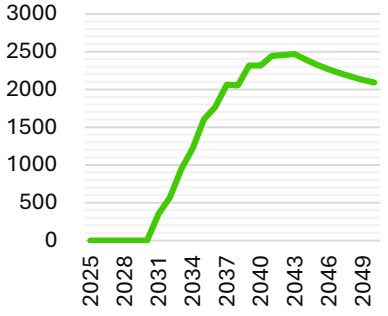


Figure 17: YOY CAPEX Projections 2025-2050 (in $M)

Source: Team Analysis



Thesis #1: Long-Duration, High-Visibility Revenue Model

Contracted, Recurring Cash Flows: NANO's primary commercialization pathway relies on long-term power purchase agreements that typically span 20–30 years, creating predictable and recurring revenue streams **(Figure 16)**. Once reactors are deployed, cash flows resemble infrastructure-style assets with limited volume risk. This structure materially improves revenue visibility and supports higher long-term valuation confidence.

High-Capacity, Baseload Economics: Microreactors operate at high-capacity factors, delivering continuous baseload power largely independent of weather or fuel price volatility. This allows NANO to generate consistent revenue across economic cycles while offering customers superior reliability compared to intermittent alternatives. Stable utilization enhances cash flow durability and reduces downside risk.

Optionality Through Licensing: In addition to owning and operating reactors, NANO plans to license its technology to select counterparties capable of financing and operating assets independently. This model provides upfront fees and ongoing royalties while limiting balance sheet intensity. Licensing enhances return on invested capital and accelerates market penetration without proportional capital deployment.

Thesis #2: Structural Demand Tailwinds Support Multi-Decade Deployment Growth

Reliability-Driven End Markets: NANO targets customers such as data centers, defense installations, and industrial facilities where power reliability, security, and sovereignty outweigh marginal cost considerations. These end markets are growing rapidly and face increasing constraints from grid congestion and decarbonization mandates. As a result, demand for firm, on-site nuclear power is structurally increasing.

Figure 18: FCF Bear vs. Base vs. Bull 2025-2050 (in $M)

Source: Team Analysis

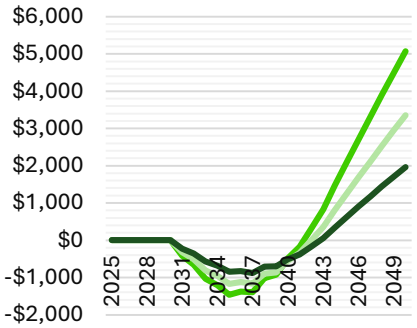
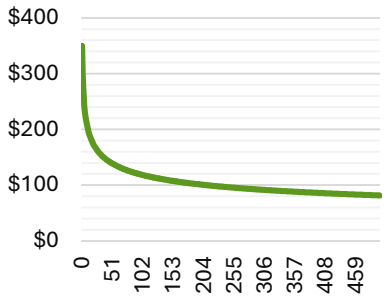


Figure 19: Capital Costs Per KRONOS Unit (in $M)

Source: Team Analysis



Regulatory & Fuel Advantages Enable Earlier Adoption: Progress through the NRC licensing process and KRONOS's compatibility with LEU+ fuel position NANO ahead of competitors constrained by regulatory uncertainty or limited HALEU availability. These advantages reduce deployment friction and shorten commercialization timelines. Earlier adoption improves market share capture and reinforces first-mover benefits.

Global Scalability Post-FOAK: Successful first-of-a-kind deployment in the U.S., alongside a potential second FOAK reactor in Canada, establishes a repeatable regulatory and technical blueprint. Regulatory alignment between the NRC and CNSC further supports international expansion. This creates a clear pathway to multi-unit, multi-region deployments over the 2030s. **(Figure 14)**

Thesis #3: Steep Learning Curve Drives Exponential Margin Expansion

Manufacturing & Deployment Learning Effects: KRONOS's modular, factory-based design enables meaningful cost reductions as production scales and processes are standardized. Historical precedent across energy and advanced manufacturing suggests steep learning curves for repeatable nuclear designs. As unit volumes increase, capital costs per reactor are expected to decline materially. **(Figure 19)**

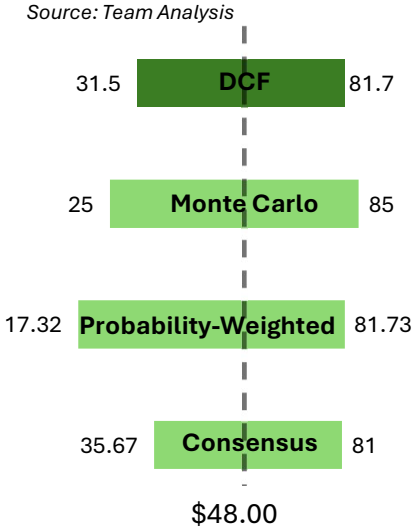
Operating Leverage at Scale: Many of NANO's engineering, regulatory, and corporate costs are largely fixed and can be spread across an expanding reactor fleet. As deployments scale, incremental revenues carry higher contribution margins. This operating leverage supports disproportionate EBITDA growth relative to revenue growth over time.

Fuel & Supply Chain Optimization: NANO's focus on standardized designs, fuel handling, and nuclear transportation improves procurement efficiency and logistics reliability. Over time, this reduces per-unit operating costs and exposure to supply chain disruptions. These efficiencies further enhance margins and strengthen long-term competitiveness. **(Figure 40)**

VALUATION

Figure 20: Valuation Football Field Analysis

Source: Team Analysis



We issue a **BUY** recommendation for NANO Nuclear Energy Inc. based on a rigorous valuation analysis employing an event-driven Discounted Cash Flow model, supplemented by Monte Carlo simulation for risk-adjusted price path analysis **(Figure 25).** We assign a 70% weight to the DCF approach due to its superior ability to capture the company's long-term intrinsic value through detailed cash flow forecasts tied to regulatory milestones and fleet deployment projections. Supporting methodologies confirm our buy recommendation, with Monte Carlo simulation providing probabilistic validation and scenario analysis quantifying the asymmetric payoff profile inherent to early-stage nuclear development **(Figure 20)**.

DCF Valuation — $46.90, 31.5% UPSIDE

Revenues: Revenue projections are driven by KRONOS microreactor deployment across four distinct market segments, each with differentiated pricing power reflecting varying degrees of energy security premiums and grid alternatives.

Product Specifications: The KRONOS MMR delivers 15 MWe of electrical capacity from a high-temperature gas-cooled microreactor design. Assuming a conservative 90% capacity factor (versus the nuclear industry average of 92%+), each unit generates approximately 118,260 MWh annually over a 20-year operating life with 10-year refueling cycles that substantially reduce fuel handling costs.

Figure 21: KRONOS Fleet Deployment by Market Segment (2031-2050)

Source: Team Analysis (PV of 2050 FCF)

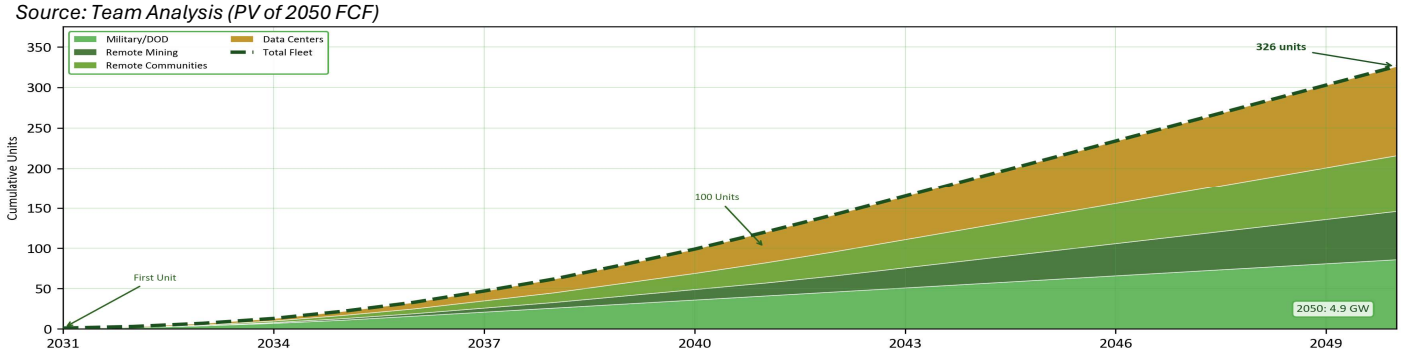


Figure 22: Projected LCOE Learning Curve & Market Breakeven Points

Source: Team Analysis

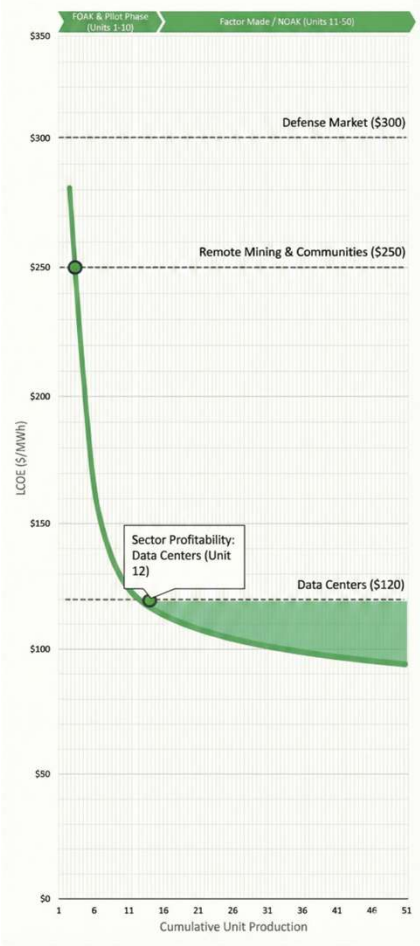


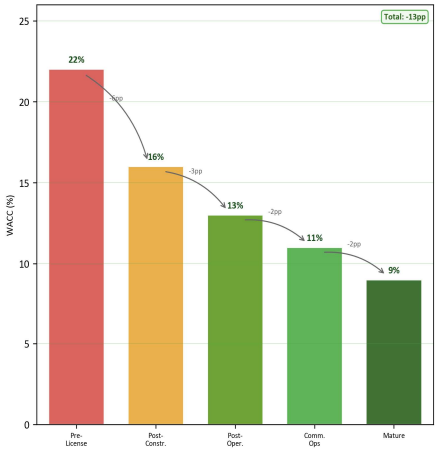
Figure 23: KRONOS MMR Operating Cost Assumptions

Source: Team Analysis

Fuel (HALEU)	$30/MWh
Fixed O&M	$20/MWh
Insurance	$18/MWh
Regulatory/NRC	$10/MWh
Total	**$78/MWh**

Figure 24: Stage Based WACC Illustration

Source: Team Analysis



Market Segmentation

We forecast revenues based on contracted pricing that reflects each segment's willingness to pay: Military/DOD applications command premium pricing of $0.30/kWh ($35.5M annual revenue per unit) driven by energy security and resilience requirements; remote mining and community applications achieve $0.25/kWh ($29.6M per unit) by displacing diesel generation at $0.30-0.50/kWh delivered cost; and data center applications target $0.12/kWh ($14.2M per unit) competitive with grid pricing plus a reliability premium. These assumptions are benchmarked against the DOD's Eielson AFB microreactor contract with Oklo (30-year PPA, $100M+ value) and utility-scale nuclear LCOE of $0.08-0.12/kWh.
Our base case projects deployment of approximately **326 KRONOS units by 2050**, representing **4.9 GW** of installed capacity **(Figure 21).** Military/DOD leads initial deployment with the first unit commissioned in 2031, validating the technology and business model. Data centers become the largest market segment by fleet share in the 2040s as learning curve economics enable competitive pricing against grid alternatives.

Costs

We model a first-of-a-kind (FOAK) unit cost of **$350M** ($23,333/kW), consistent with microreactor development benchmarks and management guidance. Applying an **85% learning rate**, conservative relative to the nuclear industry's historical 80-90% range, each doubling of cumulative production reduces unit costs by 15%. This assumption is supported by KRONOS's modular, factory-built design which enables manufacturing efficiencies unavailable to traditional stick-built nuclear construction (**Figure 22**).
Operating Costs: Annual operating expenditures of approximately $9.2M per unit ($78/MWh) comprise fuel costs ($30/MWh, reflecting current market pricing of ~$24,000/kgU for 19.75% enriched uranium), fixed O&M ($20/MWh), nuclear insurance ($18/MWh), and NRC regulatory compliance ($10/MWh).

WACC & Beta

Given NANO's pre-revenue status and the binary nature of NRC regulatory milestones, we employ a **stage-based WACC framework** that reflects declining risk as the company progresses through licensing, construction, and commercialization phases. The stage-based approach **(Figure 23)** captures the fundamental de-risking that occurs as NANO achieves regulatory milestones. The **13-percentage point reduction** from 22% to 9% reflects the transformation from a pre-revenue development company facing maximum technology and regulatory uncertainty to an established fleet operator with stable, contracted cash flows.
We view NNE's elevated historical beta of ~7.50 as a reflection of post-IPO volatility rather than fundamental risk. Our valuation instead assumes a normalized beta of ~3.60 based on peer averages, which aligns with our pre-license WACC of 22%.

Stage-Based WACC

Pre-License (22%): During 2025-2027, NANO faces peak uncertainty as it navigates the NRC Part 50 licensing process for the KRONOS design. Technology risk, regulatory approval risk, and execution risk compound to justify a venture-stage discount rate.
Post-Construction License (16%): Achievement of the construction permit in 2027 eliminates regulatory approval risk for the reactor design, though construction execution risk remains. The 6-percentage point reduction reflects this milestone.
Post-Operating License (13%): With an operating license in hand (2029), the technology is proven and regulatory risk is substantially mitigated. The remaining risk centers on construction completion and operational ramp-up.
Commercial Operations (11%): First commercial revenue in 2031 validates the business model and establishes cash flow visibility. The 11% WACC aligns with early-stage infrastructure project financing.
Mature Operations (9%): By 2035, an established fleet with contracted revenues justifies a terminal WACC consistent with mature utility valuations. At this stage, regulatory risk is substantially reduced, cash flows are more predictable, and the business profile resembles that of a long-duration infrastructure operator.

Figure 25: Monte Carlo Simulated Price Paths

Source: Team Analysis

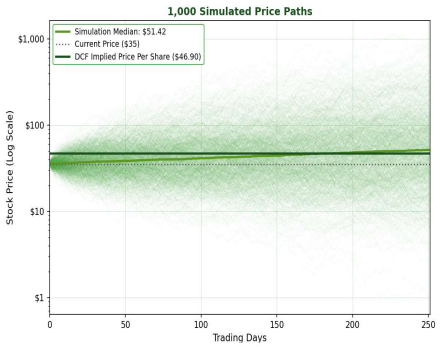


Figure 26: Monte Carlo Simulation Histogram

Source: Team Analysis

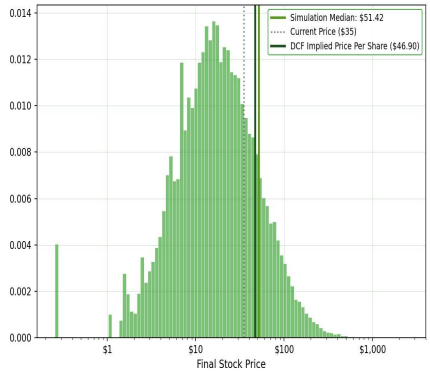


Figure 27: Target Price Derivation

Source: Team Analysis

Terminal Growth

The terminal growth rate of **2.0%** reflects our expectation for long-term cash flow expansion driven by ongoing fleet additions, pricing escalators in long-term power purchase agreements, and the secular growth in demand for clean, reliable baseload power. This estimate incorporates a reinvestment rate aligned with sustaining capital requirements and a return on new invested capital consistent with the mature nuclear industry. **Terminal Value Significance:** The terminal value represents a significant portion of total enterprise value, reflecting the long-duration nature of NANO's cash flow profile. The capital-intensive early deployment phase (2025-2035) generates negative free cash flow as construction expenditures exceed operating profits. Value creation occurs through the terminal period as the fleet achieves scale and generates substantial, durable cash flows. This structure is characteristic of infrastructure-like businesses with high upfront investment and long-lived assets.

Monte Carlo Analysis

To stress-test our DCF conclusions and capture the uncertainty inherent in early-stage nuclear development, we conducted a Monte Carlo simulation with 10,000 iterations using Geometric Brownian Motion (GBM) with parameters derived from NNE's 1-year historical trading data. **Key Findings:** The Monte Carlo median of **$51.42** exceeds our DCF target of $46.90, suggesting our fundamental valuation is conservative relative to historical volatility patterns. Our DCF target falls near the 45th percentile of the simulated distribution, indicating reasonable probability of achievement. The distribution exhibits positive skew, reflecting the asymmetric payoff profile of early-stage nuclear development—limited downside (bounded by tangible asset value) with substantial upside optionality. The 5th percentile VaR of approximately $10-15 quantifies maximum expected loss at 95% confidence, underscoring the high-risk nature of the investment appropriate for risk-tolerant investors with long time horizons.

Valuation Summary

Our **$48.00 target price** implies NANO Nuclear Energy is significantly undervalued relative to its long-term cash flow potential. The combination of accelerating demand for clean baseload power, NANO's first-mover positioning in the microreactor market, disciplined management execution on the regulatory pathway, and a "military-first" commercialization strategy that de-risks the learning curve supports our BUY recommendation.

We acknowledge the elevated risk profile inherent to pre-revenue nuclear development and recommend position sizing appropriate for the venture-stage risk characteristics of the investment. The asymmetric payoff profile, with downside bounded by tangible development value and substantial upside from successful commercialization, makes NANO an attractive holding for risk-tolerant investors with multi-year time horizons aligned with the company's milestone-driven value creation roadmap.

FINANCIAL ANALYSIS

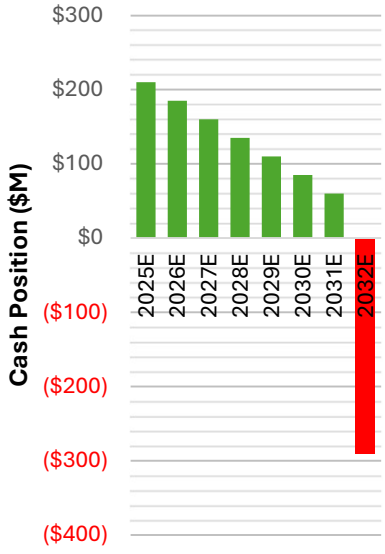
Figure 28: NNE Consolidated Financial Summary (2022-2037)

Source: Team Analysis

	2022A	2023A	2024A	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E
Revenue ($M)	-	-	-	-	-	-	-	-	-	35.50	85.20	199.90	379.60	638.60	947.30	1,329.20
Cost of Sales / OpEx ($M)	-	-	-	-	-	-	-	-	-	(9.20)	(27.70)	(64.60)	(119.90)	(202.90)	(304.40)	(433.50)
Gross Profit ($M)	-	-	-	-	-	-	-	-	-	26.30	57.50	135.30	259.70	435.70	642.90	895.70
G&A Expenses ($M)	(0.90)	(5.00)	(6.50)	(25.00)	(25.00)	(25.00)	(25.00)	(25.00)	(25.00)	(25.70)	(26.70)	(29.00)	(32.60)	(37.80)	(43.90)	(51.60)
EBITDA ($M)	**(1.10)**	**(6.30)**	**(8.40)**	**(40.40)**	**(25.00)**	**(25.00)**	**(25.00)**	**(25.00)**	**(25.00)**	**0.60**	**30.80**	**106.30**	**227.10**	**397.90**	**599.00**	**844.10**
MARGINS & RATIOS																
Gross Margin (%)	-	-	-	-	-	-	-	-	-	74.1%	67.5%	67.7%	68.4%	68.2%	67.9%	67.4%
EBITDA Margin (%)	-	-	-	-	-	-	-	-	-	1.7%	36.2%	53.2%	59.8%	62.3%	63.2%	63.5%
CASH FLOW																
Operating Cash Flow ($M)	(0.60)	(3.90)	(8.50)	(25.00)	(25.00)	(25.00)	(25.00)	(25.00)	(25.00)	0.60	30.80	106.30	227.10	397.90	599.00	844.10
CapEx ($M)	-	-	-	-	-	-	-	-	-	-350.0	-568.0	-944.6	-1214.8	-1604.4	-1765.9	-2060.3
Free Cash Flow ($M)	(0.60)	(3.90)	(8.50)	(25.00)	(25.00)	(25.00)	(25.00)	(25.00)	(25.00)	(349.40)	(537.20)	(838.30)	(987.70)	(1,206.50)	(1,166.90)	(1,216.20)
CASH BURN METRICS																
Annual Cash Burn ($M)	(0.60)	(3.90)	(8.50)	(25.00)	(25.00)	(25.00)	(25.00)	(25.00)	(25.00)	(349.40)	(537.20)	(838.30)	(987.70)	(1,206.50)	(1,166.90)	(1,216.20)

Figure 29: Estimated Cash Position until Deployment

Source: Team Analysis



NANO Nuclear Energy Inc. (NNE) is a pre-revenue stage company with valuation driven entirely by regulatory and commercial milestones rather than traditional earnings metrics. With approximately $210 million in cash and no debt, the company possesses adequate runway to advance through the NRC licensing process.

Liquidity & Cash Runway

NNE exited FY2025 with $210 million in cash and cash equivalents. Our model assumes an **asset-light approach** during the NRC licensing window (2025–2030), focusing expenditures primarily on R&D, regulatory filings, and G&A rather than physical infrastructure. At the current estimated burn rate of ~$25 million annually, existing liquidity provides a clear runway through the design certification phase. This preserves the balance sheet until the 'Final Investment Decision' (FID) for the first commercial units in 2031.

The Commercialization Pivot (2031-2042)

While the near-term licensing phase is capital-efficient, the shift to fleet manufacturing in 2031 marks the beginning of the capital-intensive cycle. Our projections indicate cumulative negative free cash flow of approximately $8.9 billion starting in the 2030s **(Figure 27)**. We model the primary equity and debt capital raises to coincide with this commercial deployment phase, limiting dilution risk during the current pre-revenue regulatory period.

ENVIRONMENTAL, SOCIAL & GOVERNANCE

Figure 30: Lifecycle Greenhouse Gas Emissions By Energy Source

Source: IPCC

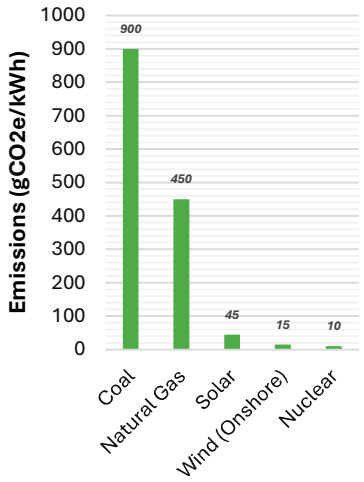
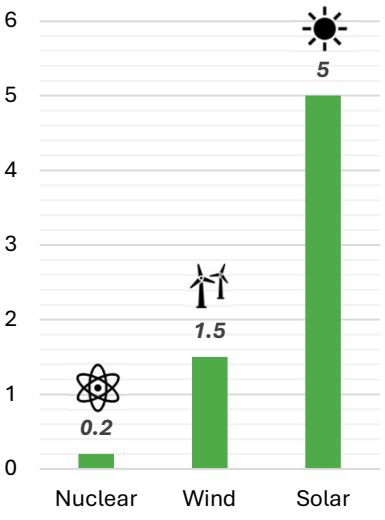


Figure 31: Land Use Per TWh

Source: IPCC (Units in km^2)



Environmental, social, and governance considerations provide a key qualitative lens for assessing NANO Nuclear Energy Inc.'s long-term positioning and risk profile. As a pre-revenue advanced nuclear developer, the investment case is driven by regulatory progress, technology validation, and execution discipline rather than near-term operating results. ESG relevance therefore stems less from historical disclosures and more from NANO's potential role in delivering zero-emissions baseload power within a decarbonizing energy system. Given the highly regulated nature of nuclear energy, governance quality, environmental safeguards, and public trust are directly linked to licensing and commercialization outcomes. While NANO does not yet report under formal ESG frameworks, this reflects its early-stage profile rather than misalignment. Overall, ESG positioning is best assessed through conservative reactor design, early regulatory engagement, and alignment with long-term climate and energy security objectives.

Material ESG Risks And Their Impacts

Nano Nuclear Energy Inc.'s ESG risk profile is shaped by regulatory, technological, and perception-related factors inherent to advanced nuclear development **and early-stage commercialization dynamics**. Commercialization depends on successful navigation of the U.S. Nuclear Regulatory Commission licensing process, where delays or additional requirements could extend timelines and increase capital needs. Despite favorable safety and emissions data, public perception of nuclear energy remains a social adoption risk that may influence regulatory scrutiny and deployment decisions. As a pre-revenue developer of first-of-a-kind microreactor systems, Nano also faces execution risks that could affect project economics if design or integration challenges arise.

ESG Performance Analysis – Environmental (E)

Low-Carbon Energy & Reliability: NANO Nuclear Energy develops advanced reactors designed to deliver reliable, carbon-free baseload power. Nuclear emits only 5–15 gCO_2e/kWh, comparable to wind and much lower than solar **(Figure 30)**, while operating at capacity factors over 90%, which reduces reliance on fossil-fuel backups or large-scale storage. NANO's microreactor and SMR designs further improve efficiency through high energy density and long operational lifetimes, supporting consistent, low-emissions electricity for diverse applications.
Land & Resource Efficiency: NANO's compact reactors require minimal land—0.1–0.3 km^2 per TWh versus 1–7 km^2 for wind and solar—helping preserve habitats and biodiversity **(Figure 31)**. Nuclear fuel produces far more energy per unit than renewables, lowering material and infrastructure needs, while modular designs allow scalable deployment in constrained or sensitive areas.

Figure 32: Deaths Per TWh

Source: NucNet

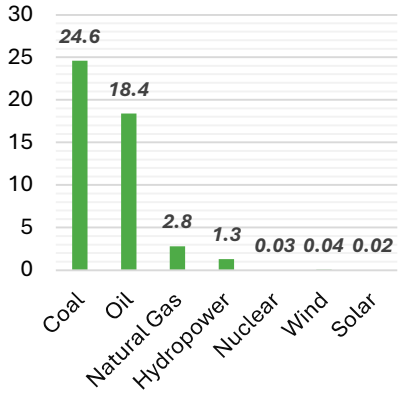


Figure 33: US Nuclear Workforce and Compensation Premium

Source: US Department of Energy

67,900
Direct US Nuclear Jobs

27%
Wage Premium vs Other Electricity Sources

Figure 34: Shareholder Ownership Structure

Source: NANO Nuclear

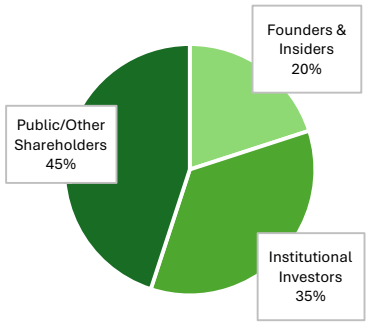


Figure 35: ESG Scorecard

Source: Team Analysis

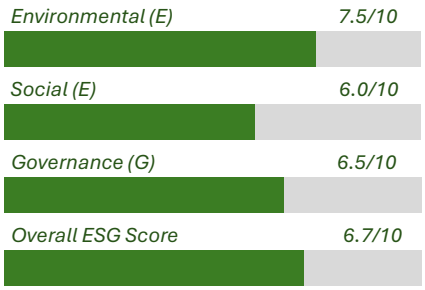


Figure 36: ESG Pillars

Source: NANO Nuclear, Team Analysis

Emissions & Waste: Nuclear power generates near-zero operational greenhouse gas emissions, and NANO's technology can displace diesel or fossil generation in remote applications. Waste volumes are small and contained, and advanced reactor designs improve fuel utilization and reduce long-term waste intensity over the reactor's lifetime, supporting sustainable energy goals.
Environmental Disclosure: Environmental reporting is currently qualitative, as reactors are in development, but NANO plans to expand quantitative disclosures on emissions avoidance, resource efficiency, and lifecycle performance. This will enhance transparency and alignment with ESG frameworks and sustainable investment standards as commercialization progresses.

ESG Performance Analysis – Social (S)

Public Safety & Health Impact: Nuclear power has one of the lowest mortality rates per electricity unit, at roughly 0.03 deaths per TWh versus 24.6 for coal and 2.8 for natural gas. This low-risk profile, driven largely by avoiding air-pollution impacts, reinforces nuclear as a safe, low-emissions baseload energy option **(Figure 30)**.
Operational Safety & Risk Management: Commercial nuclear power has over 18,500 reactor-years of operating experience, with only two major accidents historically. NANO aligns with this safety-first approach through engineered systems, conservative design margins, and early regulatory engagement during licensing and development.
Workforce Quality & Human Capital: The U.S. nuclear sector employs about 67,900 specialized workers, with compensation roughly 27% higher than other electricity generation sources **(Figure 33)**. NANO leverages this advanced engineering, regulatory, and defense expertise as a core social asset supporting safe and efficient reactor commercialization.

ESG Performance Analysis – Governance (G)

Leadership Structure: NANO's board of directors includes dedicated committees for audit, compensation, and nominating/governance, ensuring oversight of financial reporting, executive conduct, and strategic risk exposure. Committee assignments are held by multiple directors, aligning responsibilities with standard public company governance norms.
Board Composition & Independence: The Board has at least five directors, including both executive and non-executive members, with a majority classified as independent under typical standards. Recent additions, such as Dr. Seth Berl, Ph.D., bring technical and governmental expertise, reflecting a trend toward deeper board specialization.
Shareholder Structure & Control: NANO's shareholder base is concentrated among early-stage investors, with I Financial Ventures Group LLC holding roughly 18.05% of common shares, and Van Eck Associates Corp and Citadel Advisors each holding just over 5% **(Figure 34)**. No single entity has outright control, preserving board accountability to a large public shareholder base as the company scales.
Governance Transparency & Risk Management: NANO maintains disclosures consistent with public company standards, including committee charters and governance guidelines. The board has adopted a formal Nominating & Corporate Governance Committee Charter, reinforcing structured oversight of director nominations, policies, and compliance.

Material ESG Risks And Their Impacts

Nano Nuclear Energy Inc.'s ESG risk profile is primarily shaped by regulatory, technological, and perception-related factors inherent to advanced nuclear development. The company's commercialization timeline remains highly dependent on successful navigation of the U.S. Nuclear Regulatory Commission licensing process, where delays or additional requirements could extend development timelines and increase capital needs. In parallel, public perception of nuclear energy, despite favorable safety and emissions data, continues to present a social adoption risk that may influence regulatory scrutiny or deployment decisions. As a pre-revenue developer of first-of-a-kind microreactor systems, Nano also faces operational and technological execution risks that could affect project economics if design or integration challenges arise. Collectively, these ESG-related risks have the potential to impact Nano's capital requirements, time to commercialization, and long-term valuation if not effectively managed.

INVESTMENT RISKS

Figure 37: Risk Matrix

Source: Team Analysis

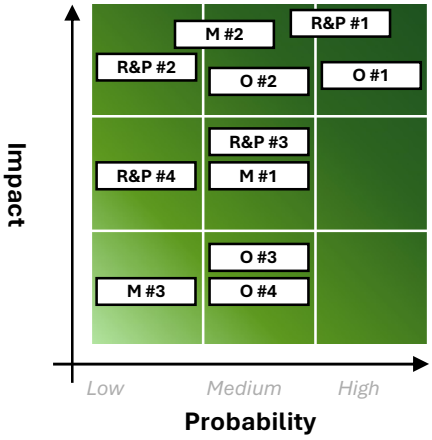


Figure 38: FCF Sensitivity Analysis (in $M)

Source: Team Analysis (PV of 2050 FCF)

WACC \ Growth	1%	1.5%	2%	2.5%	3%
8%	3.03	3.28	3.57	3.91	4.32
9%	2.65	2.84	3.06	3.31	3.60
10%	2.36	2.50	2.68	2.87	3.09
11%	2.12	2.24	2.38	2.53	2.70
12%	1.93	2.03	2.14	2.27	2.40
13%	1.76	1.85	1.95	2.05	2.16
14%	1.63	1.70	1.78	1.87	1.97

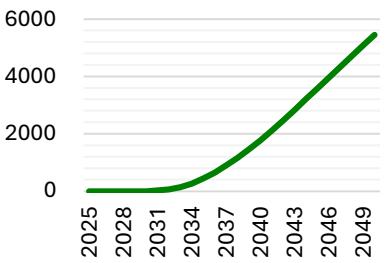
Figure 39: Share Price Sensitivity Analysis (in $M)

Source: Team Analysis (Price in 1Y in $)

Learning Curve \ FOAK Unit Cost (in $M)	300	325	350	375	400
83%	85.4	76.4	67.4	58.3	49.3
85%	67.9	57.4	46.9	36.4	25.9
87%	47.7	35.5	23.3	11.1	0.0

Figure 40: EBITDA With Fuel Costs Rising by 25% (in $M)

Source: Team Analysis



Regulatory & Political Risks

[R&P #1]: Nuclear Regulatory Approval Risk: Lengthy and unpredictable nuclear permitting and licensing processes could delay project timelines, defer cash flows, and materially reduce project net present value. **Valuation:** Cash flow delayed resulting in pre license WACC (22%) extending two more years and decrease of cash flow NPV **(Figure 38)**. **Mitigation:** Engage regulators early, use proven designs, and pursue parallel permitting to shorten approval timelines.

[R&P #2]: Policy Reversal Risk: Changes in government priorities or political leadership could reduce subsidies, regulatory support, or favorable permitting for nuclear energy, increasing project costs and required returns. **Valuation:** Increases FOAK unit costs by 15% **(Figure 39)**. **Mitigation:** Design projects to be subsidy-independent and aligned with bipartisan energy security objectives.

[R&P #3]: Geopolitical Uranium & Fuel Cycle Risk: Sanctions, trade restrictions, or geopolitical disruptions affecting uranium supply and enrichment capacity could increase input costs and constrain access to critical fuel-cycle components. **Valuation:** Increase in uranium cost by 15% **Mitigation:** Diversify fuel sources, lock in long-term contracts, and prioritize domestic enrichment exposure.

[R&P #4] Nuclear Liability & Insurance Framework Risk: Changes to nuclear liability regimes or insurance requirements could materially increase operating and compliance costs, reducing project returns. **Valuation:** Increase in insurances costs by 5%. **Mitigation:** Structure projects within established liability regimes, lock in long-term insurance early, and use standardized, insurable designs.

Market Risks

[M #1]: Competition From Alternative Energy Sources: Rapid cost declines in renewables and energy storage could reduce nuclear's relative economic attractiveness and compress long-term pricing power. **Valuation:** Results in revenue dropping by 5% from decreased market share. **Mitigation:** Position nuclear as reliable baseload power that complements intermittent renewables rather than competing on marginal cost alone.

[M #2]: Electricity Price & PPA Risk: Long-term fixed-price PPAs may cap upside revenue potential or become uneconomic if power prices or cost structures move unfavorably. **Valuation:** PPA agreements revenue decrease by 15%. **Mitigation:** Structure PPAs with inflation escalators, price floors, and selective merchant exposure to preserve upside and downside protection.

[M #3]: Limited Institutional Investor Adoption: Limited institutional participation in a pre-revenue, long-duration asset may suppress valuation multiples and increase share price volatility. **Valuation:** Results in higher IV of NNE. **Mitigation:** Increase transparency, milestone credibility, and long-term cash flow visibility.

Operational Risks

[O #1]: Pre-Revenue Execution Risks: NANO's valuation is highly dependent on management's ability to execute on timelines, budgets, and commercialization milestones. **Valuation:** Delay FOAK construction by 16 months **(Figure 39)**. **Mitigation:** Set milestone-driven development plans with third-party validation and interim monetization opportunities.

[O #2]: Project Development & Construction Risks: Nuclear infrastructure projects carry elevated risk of cost overruns and schedule delays due to technical complexity and regulatory oversight. **Valuation:** Reduces learning curve by 5%. **(Figure 22) Mitigation:** Use fixed-price EPC contracts, modular designs, and conservative contingency allowances.

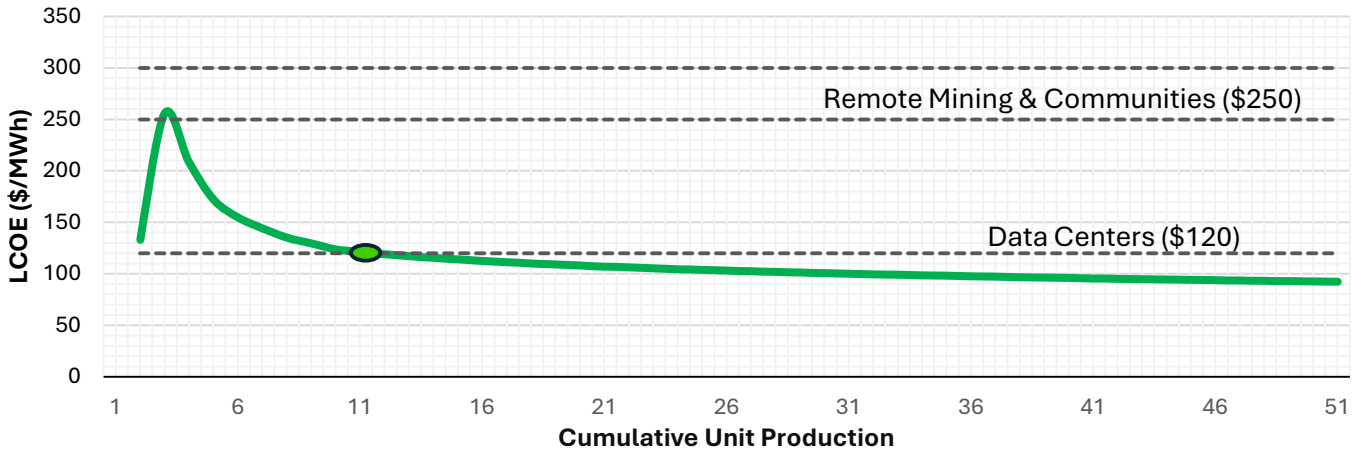
[O #3]: Supply Chain Integration Risk: Vertical integration across the nuclear fuel cycle may fail to deliver expected synergies due to operational challenges. **Valuation:** Increase in fuel costs by 25%, losing almost $400M EBITDA **(Figure 40)**. **Mitigation:** Prioritize partnerships and minority stakes before committing to full integration.

[O #4]: Increased Engineering Talent Costs: Competition for specialized nuclear and engineering talent could drive higher labor costs, pressuring operating margins and project economics. **Valuation:** Increase in operating costs by 10%. **Mitigation:** Lock in key staff with long-term incentive plans and strategic partnerships.

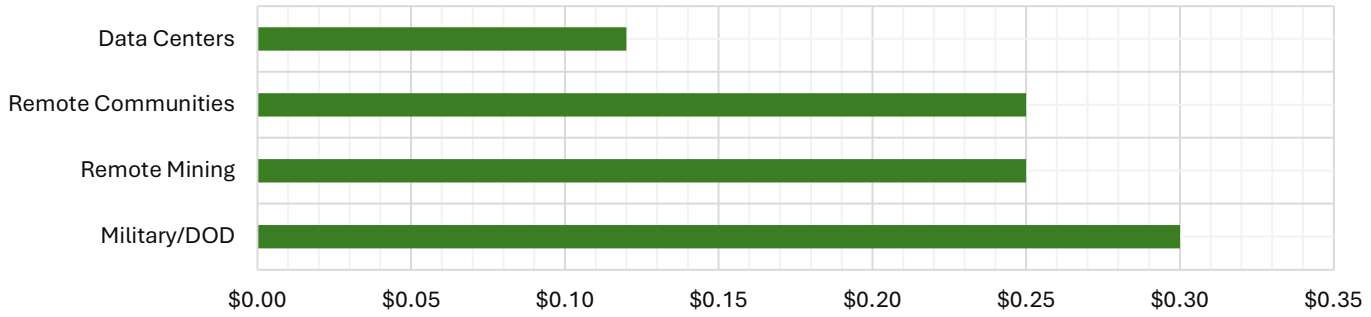
ANNEX

Annex – Table of Contents

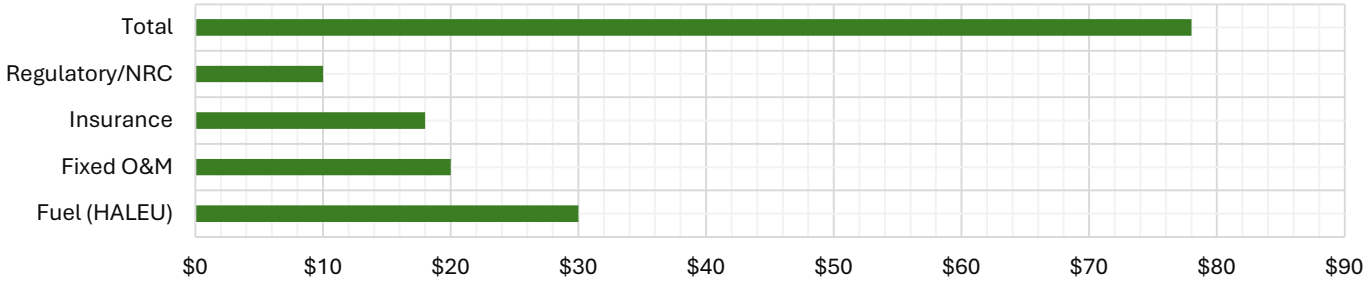
Annex 1 – Break Even Per Sector Levelized Cost of Energy



Annex 2 – Revenue Pricing ($/kWh)



Annex 3 – KRONOS MMR Operating Costs ($/MWh)



Annex 4 – ESG Opportunities For NANO Breakdown

Opportunity Dimension	Fossil Fuels	Renewables	Advanced Nuclear (NANO)
Carbon Emissions	*High*	*Low*	*Zero*
Baseload Reliability	*High*	*Low*	*High*
Land Use Intensity	*Moderate*	*High*	*Low*
Energy Security	*Medium*	*Medium*	*High*

Annex 5 – Key Milestone Assumptions

Milestone	Bull	Base	Bear	Duration
Construction License Submit	-	Q1 2026	Q4 2026	-
Construction License Approval	Q4 2026	Q2 2027	Q2 2028	16 months
Operating License Submit	Q4 2026	Q2 2027	Q2 2028	Concurrent
Operating License Approval	Q1 2028	Q3 2028	Q3 2029	16 months
FOAK Construction Complete	Q1 2030	Q3 2030	Q3 2031	24 months
First Commercial Revenue	Q1 2030	Q3 2030	Q3 2031	-

Annex 6 – Key Valuation Assumptions

Parameter	Bull	Base	Bear
First Revenue Year	2030	2030	2031
Deployment Multiplier	1.3x	1.0x	0.7x
Price Adjustment	1.1x	1.0x	0.9x
Probability Weight	20%	60%	20%

Annex 7 – Year-By-Year Projections (2025-2050)

Year	Bull Rev	Bull EBITDA	Bull FCF	Base Rev	Base EBITDA	Base FCF	Bear Rev	Bear EBITDA	Bear FCF
2025	$0	$0	$0	$0	$0	$0	$0	$0	$0
2026	$0	$0	$0	$0	$0	$0	$0	$0	$0
2027	$0	$0	$0	$0	$0	$0	$0	$0	$0
2028	$0	$0	$0	$0	$0	$0	$0	$0	$0
2029	$0	$0	$0	$0	$0	$0	$0	$0	$0
2030	$0	$0	$0	$0	$0	$0	$0	$0	$0
2031	$51	$38	$38	$35	$26	$26	$22	$17	$17
2032	$122	$82	-$760	$85	$57	-$590	$54	$36	-$417
2033	$286	$193	-$1,098	$200	$135	-$858	$126	$85	-$610
2034	$543	$371	-$1,247	$380	$260	-$985	$239	$164	-$708
2035	$913	$623	-$1,492	$639	$436	-$1,191	$402	$274	-$864
2036	$1,355	$919	-$1,396	$947	$643	-$1,138	$597	$405	-$842
2037	$1,901	$1,281	-$1,413	$1,329	$896	-$1,177	$837	$564	-$887
2038	$2,467	$1,650	-$1,032	$1,725	$1,154	-$909	$1,087	$727	-$717
2039	$3,139	$2,083	-$939	$2,195	$1,457	-$868	$1,383	$918	-$709
2040	$3,830	$2,525	-$495	$2,679	$1,765	-$557	$1,688	$1,112	-$514
2041	$4,585	$3,002	-$180	$3,206	$2,099	-$349	$2,020	$1,322	-$391
2042	$5,381	$3,508	$313	$3,763	$2,453	-$5	$2,371	$1,546	-$175
2043	$6,220	$4,043	$825	$4,350	$2,828	$352	$2,740	$1,781	$48
2044	$7,059	$4,579	$1,465	$4,936	$3,202	$807	$3,110	$2,017	$340
2045	$7,898	$5,114	$2,089	$5,523	$3,576	$1,249	$3,479	$2,253	$624
2046	$8,736	$5,650	$2,701	$6,109	$3,951	$1,682	$3,849	$2,489	$901
2047	$9,575	$6,185	$3,304	$6,696	$4,325	$2,109	$4,218	$2,725	$1,173
2048	$10,414	$6,721	$3,899	$7,282	$4,700	$2,529	$4,588	$2,961	$1,442
2049	$11,253	$7,256	$4,488	$7,869	$5,074	$2,945	$4,957	$3,197	$1,707
2050	$12,091	$7,791	$5,073	$8,456	$5,448	$3,357	$5,327	$3,433	$1,969

Annex 8 – Valuation Summary

Metric	Bull	Base	Bear
Total Units Deployed (2050)	424	326	228
Annual Revenue 2040 ($M)	$3,830	$2,679	$1,688
Annual EBITDA 2040 ($M)	$2,525	$1,765	$1,112
Annual Revenue 2050 ($M)	$12,091	$8,456	$5,327
Annual EBITDA 2050 ($M)	$7,791	$5,448	$3,433
Cumulative CapEx ($M)	$49,472	$38,055	$26,639
Sum of PV(FCF) ($M)	-$433	-$795	-$879
Terminal Value ($M)	$73,919	$48,921	$28,687
PV of Terminal Value ($M)	$4,620	$3,058	$1,793
ENTERPRISE VALUE ($M)	**$4,187**	**$2,263**	**$914**

Annex 9 – Probability Weighted Expected Value

Probability Weights:	Bull 20% | Base 60% | Bear 20%
Calculation:	(10,002 x 20%) + (5,249 x 60%) + (2,741 x 20%)
EXPECTED ENTERPRISE VALUE ($M)	**$2,378**
Enterprise Value ($B)	$2.38

Annex 10 – Implied Share Price

Valuation Summary		Equity Bridge		Per Share Analysis	
Sum of PV(FCF)	-$795 $M	Enterprise Value	2203.14 $M	Shares Outstanding (M)	50
Terminal Value (undiscounted)	$47,962 $M	Plus: Cash	210.1824 $M	**Implied Share Price**	$ 48.14
PV of Terminal Value	$2,998 $M	Less: Debt	6.088138 $M	NNE	$ 35.67
ENTERPRISE VALUE	**$2,203 $M**	**EQUITY VALUE**	**2407.234 $M**	**Upside / Downside**	34.97%

Annex 11 – Levelized Cost of Energy Breakdown

Cost Category	Estimated Cost (in Millions of U.S. Dollars)	Levelized Cost (MWh)
Project development	$3	$39
Direct costs	$34	$149
Indirect services	$2	$7
Operating staff recruitment, training, etc.	$1	$4
Capitalized supplementary costs, including initia	$13	$55
Capitalized financial costs	$2	$24
Annualized O&M costs	$1	$39
Annualized fuel costs	$2	$83
Levelized Cost of Electricity		**$363**

Annex 12 – KRONOS Specifications

Product Specifications	
Reactor Name	KRONOS MMR
Power Output	15 MWe
Capacity Factor	90%
Annual Generation	118,260 MWh
Reactor Lifetime	20 Years
Unit lifetime generation (MWh)	2,365,200 MWh
Refueling Cycle	10 Years

Annex 13 – Revenue Projections By Market Breakdown (2025-2050)

Year	Military ($M)	Mining ($M)	Remote ($M)	DataCenter ($M)	Total Revenue ($M)
2025	$0.0	$0.0	$0.0	$0.0	$0.0
2026	$0.0	$0.0	$0.0	$0.0	$0.0
2027	$0.0	$0.0	$0.0	$0.0	$0.0
2028	$0.0	$0.0	$0.0	$0.0	$0.0
2029	$0.0	$0.0	$0.0	$0.0	$0.0
2030	$0.0	$0.0	$0.0	$0.0	$0.0
2031	$35.5	$0.0	$0.0	$0.0	$35.5
2032	$71.0	$0.0	$0.0	$14.2	$85.1
2033	$141.9	$0.0	$29.6	$28.4	$199.9
2034	$248.3	$29.6	$59.1	$42.6	$379.6
2035	$390.3	$59.1	$118.3	$71.0	$638.6
2036	$567.6	$88.7	$177.4	$113.5	$947.3
2037	$745.0	$147.8	$266.1	$170.3	$1,329.2
2038	$922.4	$207.0	$354.8	$241.3	$1,725.4
2039	$1,099.8	$295.7	$473.0	$326.4	$2,194.9
2040	$1,277.2	$384.3	$591.3	$425.7	$2,678.6
2041	$1,454.6	$473.0	$739.1	$539.3	$3,206.0
2042	$1,632.0	$591.3	$887.0	$652.8	$3,763.0
2043	$1,809.4	$739.1	$1,034.8	$766.3	$4,349.6
2044	$1,986.8	$887.0	$1,182.6	$879.9	$4,936.2
2045	$2,164.2	$1,034.8	$1,330.4	$993.4	$5,522.7
2046	$2,341.5	$1,182.6	$1,478.3	$1,106.9	$6,109.3
2047	$2,518.9	$1,330.4	$1,626.1	$1,220.4	$6,695.9
2048	$2,696.3	$1,478.3	$1,773.9	$1,334.0	$7,282.5
2049	$2,873.7	$1,626.1	$1,921.7	$1,447.5	$7,869.0
2050	$3,051.1	$1,773.9	$2,069.6	$1,561.0	$8,455.6

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