NUCLEATION CAPITAL

Investing in next-generation nuclear and other deeptech climate solutions


Energy is society’s lifeblood. But burning fossil fuels is ***threatening our planet’s livability.***

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Nucleation Capital is the first venture fund focused on ***advanced nuclear and other deep decarbonization ventures,*** the critical clean energy & carbon controlling technologies we need to reduce global emissions.

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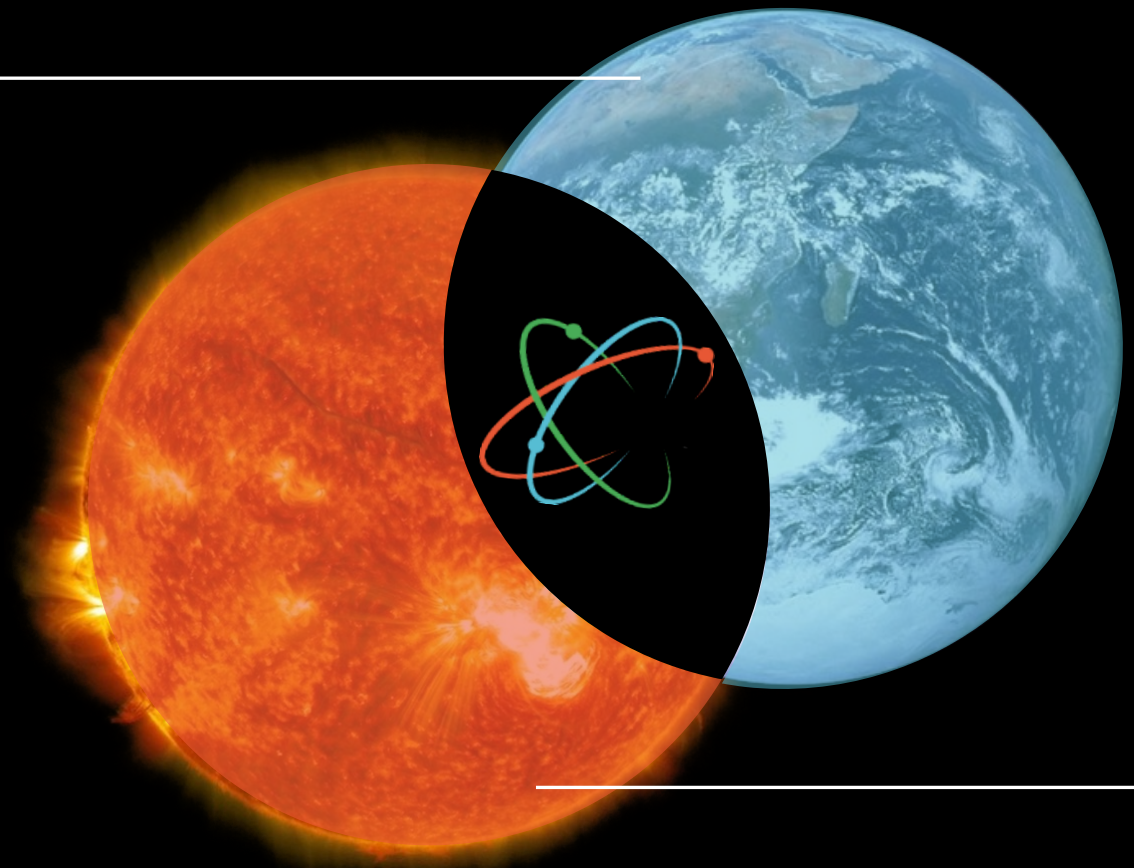
OUR THESIS

We invest in critical technologies that will enable us to both reduce our carbon emissions and restore our planet's atmosphere back to health in two primary ways:

Deploy new advanced nuclear technologies at scale to better meet humanity's energy needs yet reduce new CO_2 emissions.



Draw down and use accumulated CO_2 emissions by capturing CO_2 from the air, and using it in ways that prevent it from harming the climate.

Nucleation's investment focus consists primarily in:

ADVANCED NUCLEAR ENERGY

Advanced nuclear energy designs, their supply chains and support ventures

DEEP DECARBONIZATION

Technologies to capture and utilize CO2 emissions (CCUS) in commercial ways

MACRO-ENERGY INTEGRATION

Smart grid innovations that optimize macro energy systems to best manage power.

Our Focus: Early, High-Growth Stages

STAGE	EARLY/SEED	VENTURE	STRATEGIC	LATE/PUBLIC
Funding Needs*	<$2-25	$25-$150	$150-500	$500-$2B
Valuation	<$10-100	$100-$1B	$1B-$5B	$5B+
Invest $ Range	<$1	$.5 - $2	$25-50	$50-150
BUSINESS GROWTH AREAS (BGA) (Remaining)	Liquidity	Liquidity	Liquidity	Liquidity
	Competition	Competition	Competition	Competition
	Sales Execution	Sales Execution	Sales Execution	Sales Execution
	Testing/Regulatory	Testing/Regulatory	Testing/Regulatory	Testing/Regulatory
	Business Model	Business Model	Business Model	Business Model
	Design/Development	Design/Development	Design/Development	Design/Development
	Team/Management	Team/Management	Team/Management	Team/Management

OUR INVESTMENT FOCUS

*In Millions or Billions ($B).
**Past BGAs (in blue) represent areas of reduced risk relative to active, remaining BGAs

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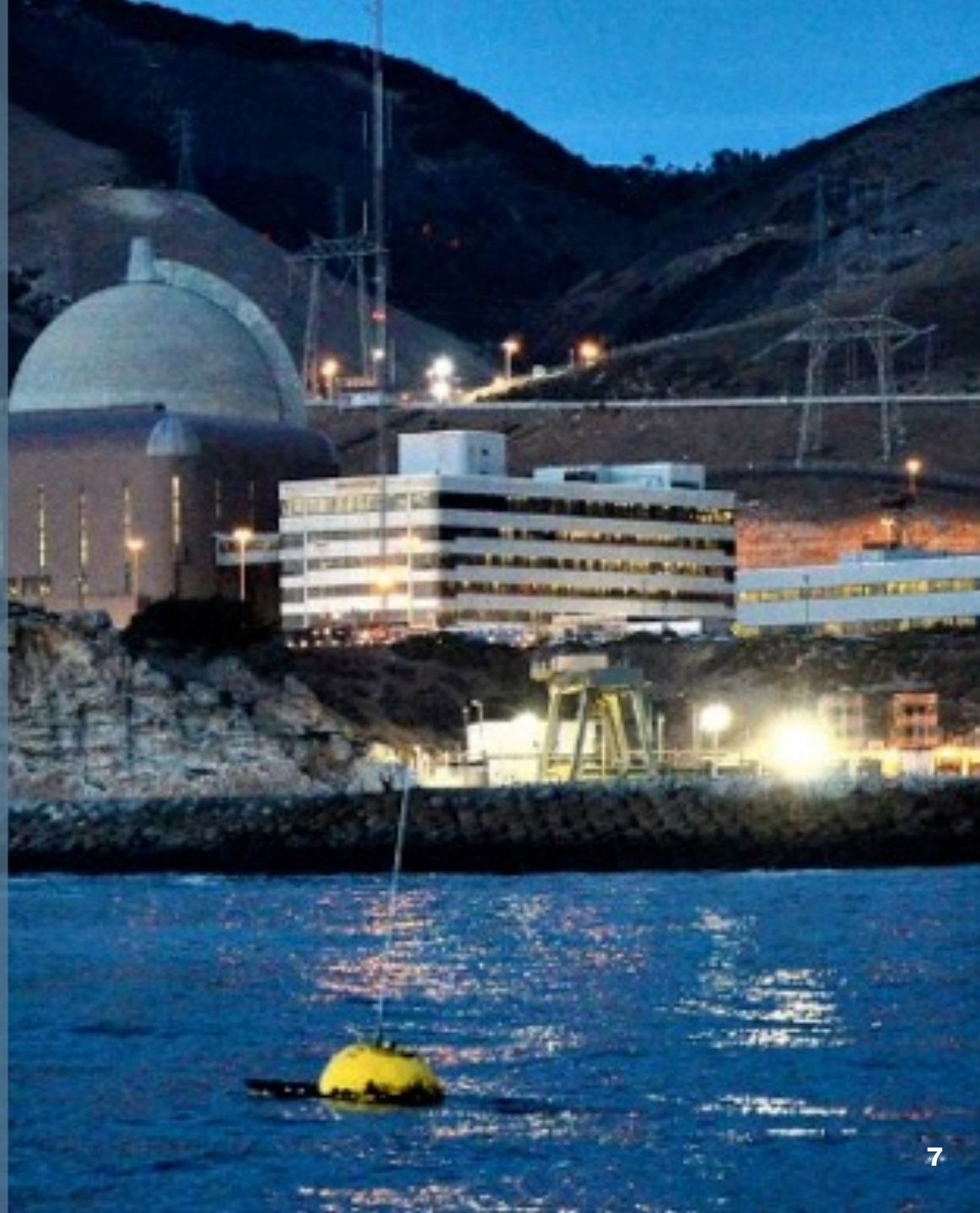
Nuclear power has produced the vast majority of our carbon-free (and toxin free) energy for decades but . . .

- Traditional LWRs are **aging out**
- Advanced designs will provide **higher-quality heat and superior performance**
- New designs will **serve a broader range of customers' energy needs.**



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New Gen IV designs are on their way, in a variety of *sizes and configurations.*

Artist concept of the 1.5 MW Aurora, an advanced 4th generation design proposed by Sunnyvale-based Oklo.

Nucleation Team

EXPERIENCE, FOCUS AND VISION

Our team is comprised of thought leaders and experts connected in the mission of investing in and supporting entrepreneurs working to address the world's most wicked problem—climate change.

"We studied the data and saw that the consensus climate investment focus was not on the globally-scalable technology—nuclear—that was producing the majority of our clean energy. So, anticipating nuclear's crucial future role in decarbonization, we opted to focus on the contrarian approach—which we think will be the way we succeed in eliminating fossil fuel use."

— Valerie Gardner

Valerie Gardner
Managing Partner

Rod Adams
Managing Partner

Rick DeGolia
Managing Member

Dr. Jonathan Tiemann
Chief Financial Officer

NUCLEATION CAPITAL

Our unique vision

Anticipating next-generation nuclear's critical role in supporting decarbonization.

Investors expect their wealth to endure yet climate change puts it all at risk. We assess the macro existential risk of unreliable grids or mounting weather extremes and find that investments in clean energy innovation reduce overall portfolio risk and improve alpha.

Valerie Gardner, Managing Partner

FORMER TECH ENTREPRENEUR AND LONG-TIME INVESTOR

- Co-founder and Principal of Tiemann Investment Advisors, a RIA with AUM of $300 million.
- Chief Financial Officer & General Counsel of WebTV Networks Inc., acquired by Microsoft.
- Co-Founder, Chief Financial Officer & General Counsel of Willow Peripherals Inc.
- MBA from Yale SOM and JD from Northeastern University School of Law
- Co-founder of Climate Coalition, a non-profit prioritizing collaboration on nuclear-inclusive low-carbon climate solutions

Rod Adams, Managing Partner

FORMER NAVY COMMANDER, INDEPENDENT ATOMIC ENERGY EXPERT & VISIONARY

- Founder and President of Adams Atomic Engines, an early Advanced Nuclear startup and patent-holder of a gas turbine control system for a nuclear heating process.
- Served 11 deployments in the US Navy, supporting nuclear power operations
- Worked on the M-Power advanced nuclear reactor venture of B&W's (now BWXT).
- Founder, host and author of Atomic Insights and The Atomic Show podcast, which explore issues with nuclear technology, companies, regulation, competition and public opinion.

Rick DeGolia, Managing Member

FORMER ATTORNEY, SERIAL ENTREPRENEUR, NOW LEADING CLEAN ENERGY STRATEGIST

- Co-Founder and/or CEO of Genesys Telecom, Apptera, Ip2use, Green Wireless Systems, Invism and Cimbal, and holder of several related patents.
- Wilson Sonsini attorney who represented growth ventures, venture capital firms and investment banks who participated in more than 100 financings and 25 IPOs.
- Current Chair of the Peninsula Clean Energy, a CCA and sits on the Atherton City Council.

Jonathan Tiemann, PhD, Chief Financial Officer

INVESTMENT MANAGER, FINTECH INNOVATOR, FINANCIAL EXPERT & HISTORIAN

- Co-Founder, President and Chief Investment Officer of Tiemann Investment Advisors, an institutional-caliber 20 year-old quantitative investment firm, with $350 million in AUM.
- Former fintech developer, CEO, CIO, Chief Investment Strategist for up to $200B in AUM.
- Has served on the Economic Advisory Board for FINRA, provided expert valuation analysis and has researched and taught Global History of Capitalism at Oxford University.

Why advanced nuclear is highly competitive

MINIMAL ECOLOGIC IMPACT

- Dense fuel and small, compact land footprint
- Can reuse retired coal or gas plant sites, saving on build costs
- May be able to use nuclear waste as fuel, reducing waste stores

RELIABLE, FLEXIBLE, RESILIENT, CLEAN

- Nuclear efficiency and capacity factors keep improving over time
- Flexible generation provides electricity, process heat, grid stabilization services, energy storage and load following, as needed
- Fully enclosed systems will operate in a changing climate with extreme weather

SMALLER, MODULAR, TRANSPORTABLE

- Will be factory-made and so achieve cost reductions
- Smaller modules will be easily transported to build locations
- Reduced construction time reduces costs and financing needs
- System automation will reduce operating costs, augment safety

SIZED FOR TODAY BUT GROWS WITH NEED

- Scalable designs allow capacity to be added incrementally and cost-effectively, as needed
- Diverse designs will meet a wider array of distinctive customers' energy needs
- Carbon credits and support of revenue-generating "climate services" will improve project economics

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Simultaneously, the world must *embrace CCUS to restore a healthy climate*

Even if we can eliminate all new emissions, there's more than 1 trillion gigatons of excess CO_2 already forcing global warming to dangerous levels and causing enormous damage on land and sea.

Capturing CO_2 and sequestering large amounts are the only way to restore the climate to "normal" bounds but the scale needed to make a difference is enormous. The U.S. Government has appropriated billions to support CCUS.

Dozens of companies are developing technologies to capture CO_2 and more are working to convert it into useful products. Considerable know-how already exists: the challenge is achieving commercial designs that can cost-effectively scale (without adding new emissions).

The emerging CCUS industry will introduce a wide range of carbon-neutral products from liquid fuels to synthetic proteins. For all, the availability of low cost, 24x7 clean energy is an essential enabler of these technologies.

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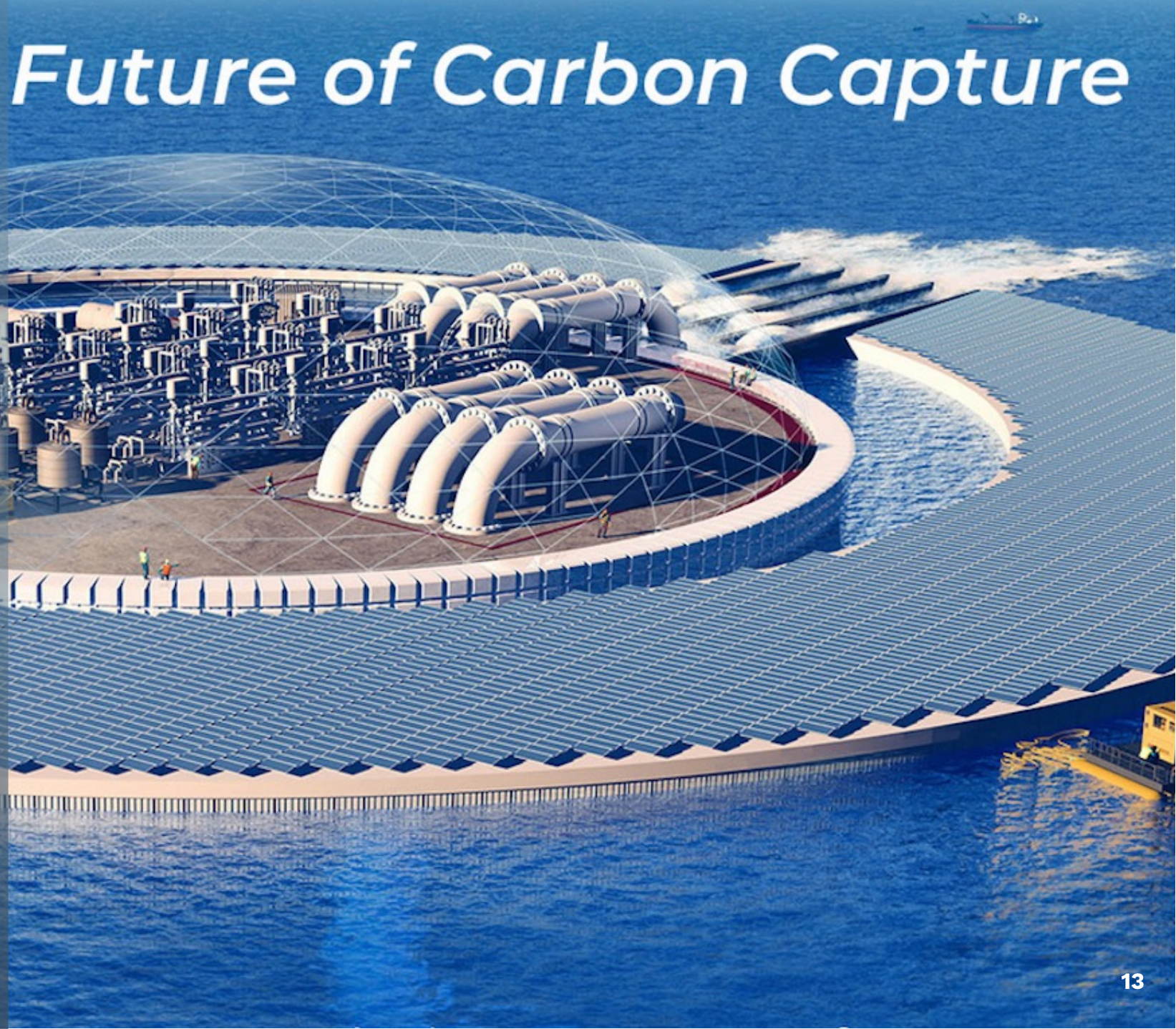
The Future of Carbon Capture

Carbon capture *development progresses*

A number of carbon capture projects are being designed, built and tested for different approaches to carbon capture and sequestration. Meanwhile, various ventures are working to convert captured CO2 into products, including synthetic hydro-carbons.

(Artist's rendering of the Captura ocean-based carbon capture concept.)



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Our first two year investments

CORE-POWER

RADIANT

DEEP ISOLATION™

SYNERGETIC

ULTRA SAFE NUCLEAR

copenhagen atomics

FOCUSED ENERGY

PLANETARY

NuclearN
Nuclear Ready AI

Blykalla

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Advisory Team

We are honored to have the support of a diverse and growing community of experts allied with our mission.

(Partial listing.)

Ray Rothrock
Venrock / Investor

Ross Koningstein
Google / Nuclear

Dr. Todd Allen
University of Michigan

Charles Peterson
Covington

Meredith Angwin
Energy Author

Eugene Grecheck
Nuclear Energy Expert

Dr. Laura Smoliar
Taiwan Science & Tech Hub

Gary Dillabough
Navitas Capital

Charles Oppenheimer
The Oppenheimer Project

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Terms *for investor participation**

Apply through Nucleation's subscription portal

Use an easy online paperless process. View and download fund information, terms and legal documents at AngelList Ventures, our fund custodian.

Institutional LPs may subscribe through a traditional closing process, if preferred.

** Terms may be waived at GP's discretion.*

RECOMMENDED MINIMUMS:

Accredited Investors: $5,000 per quarter, 8 quarters
Institutional LPs: $200,000 per quarter, 8 quarters

FEES & TERMS:

Standard fee: 2% per annum management fee for ten years. 20% carried Interest, paid after full return of principal.
Discounts: 25% on management fee (down to 1.5%) for subscriptions of 8 quarters or more. 25% discount on carry (down to 15%) for subscriptions of $200,000 & up.
AL platform fee: Nucleation pays this through Q4-2024.

INVESTOR RIGHTS

Pro-rata equity participation in every deal closed for all quarters subscribed.
No GP carry paid until all invested capital for the entire subscribed term has been fully repaid from proceeds.
Fully-featured account portal for funding and reporting.
Priority access and discounted carry of 15% on all Nucleation Capital syndicated offerings (SPVs).

About Nucleation's Rolling Fund structure

Technology-supported interface improves fund accessibility

- Fast and easy online subscription.
- Track reports and deals in one place.
- Online accreditation enables broader democratization as well as suitability.
- Standard terms reduce closing costs.
- Automation allows more investors to participate with very low minimums.
- Quarterly capital payments simplify LP cash planning and management.
- Reduced fund administrative costs means reduced management fees.

How rolling funds differ from standard venture funds

- Investors may subscribe any time, with only past quarters closed to new LPs.
- Investors may select the period over which to subscribe, minimizing risks.
- Flexible and automated electronic funding simplifies payment handling.
- No unexpected expenses or capital calls.
- Investors can increase, stay the same, or cancel their subscriptions at any time.
- Online portal tracks all funding, returns, K1s, fund communications, etc.

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Nuclear: A Key Climate Solution

Policy-makers, scientists, business leaders, investors and philanthropists are increasingly recognizing the role that nuclear must play in our future zero-carbon energy system.

"Nuclear energy is clean energy and it's vital to creating good-paying jobs, supporting our energy transition, and saving our planet."
—Jennifer Granholm, Secretary of Energy

"Providing for a nuclear energy option, both nationally and globally, to provide clean, dispatchable baseload and scalable power in a complex and dynamic power grid environment is a critical goal."
—Breakthrough Energy Coalition

"My Nuclear Energy Leadership Act, which is cosponsored by Senator Booker and 16 additional Senators, is designed to reposition the United States as the undisputed world leader in advanced nuclear technology."
—Senator Lisa Murkowski, R-AK

Funders should be "helping to finish off the research and development on fourth-generation reactors . . ."
—Larry Kramer, Hewlett Foundation

"Climate scientists tell us that the world must drastically cut its fossil fuel use in the next 30 years to stave off a potentially catastrophic tipping point for the planet. Confronting this challenge is a moral issue, but it's also a math problem—and a big part of the solution has to be nuclear power."
—Joshua S. Goldstein and Staffan A. Qvist, in a NYT op-ed

"Taking any option to reduce carbon emissions off the table, including nuclear power, is morally reprehensible."
—Varun Sivaram, ReNewPower

"Nuclear power paves the only viable path forward on climate change."
—Dr. James Hansen, former NASA Scientist, Columbia's Earth Institute

"Safer nuclear reactors are on the way: resilient fuels and innovative reactors could enable a resurgence of nuclear power."
—Mark Fischetti, in Scientific American

"Without an important contribution from nuclear power, the global energy transition will be that much harder."
—Dr. Fatih Birol, IEA

"The imperative of climate change means we must look at options to continue to build nuclear power in the United States."
—World Resources Institute

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Why Invest in Nuclear Now?

- Twenty-four nations pledged to triple the amount of nuclear they use by 2050 and thirty are working to add new nuclear to their grids for the first time.
- The US includes nuclear for clean energy tax benefits of the IRA and the EU now includes nuclear energy in the Sustainable Taxonomy, putting nuclear technology on an even basis with other types of renewable energy.
- Failure to reduce global GHG emissions despite trillions spent on renewables has increased recognition that nuclear, as a source of firm, clean energy is as a critical component of a low-carbon energy system.
- Climate change poses a wicked, existential threat to our future. 198 nations agreed to transition away from fossil fuels but need better options for reliable carbon-free, secure and affordable energy. Only nuclear competes with fossil fuels for secure reliable power.
- Dozens of countries (Japan, Korea, Sweden, Belgium, Poland, etc.) and numerous U.S. states have repealed bans or restrictions on building new nuclear and are looking to add more nuclear to meet clean energy goals.

Fission is 100,000,000 times denser than fossil fuels. Hard to comprehend but compare 1 mile to the distance (93,000,000 miles) the sun is from the Earth.