TRISO·X

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Build the factories that fuel the next generation of nuclear energy.

At a glance. Full P&L accountability for a wholly-owned subsidiary scaling a first-of-a-kind nuclear fuel manufacturing business from its first facility into a global network. Reports to Clay Sell, CEO of X-energy. Based in Oak Ridge, Tennessee, with regular time at X-energy headquarters in Rockville, MD and meeting with customers (including Amazon, Dow, and Centrica) in the US and UK.

ABOUT X-ENERGY

X-energy is America's leading nuclear small modular reactor (SMR) company. At a time when the demand for energy has soared to all-time highs driven by AI, electrification, and industrial reshoring, X-energy is building a new kind of nuclear power plant: smaller, simpler, factory-friendly, and safe by the laws of physics rather than by layers of engineered backup systems.

The company's flagship product is the Xe-100, an SMR that produces 80 megawatts of carbon zero electricity or 200 megawatts of high-temperature heat. It is designed to be deployed in packs of four or more, so customers can scale capacity the way a data center adds server racks. Because the Xe-100 delivers industrial-grade heat as well as power, it can serve chemical plants and heavy industry, not just the electric grid.

Founded in 2009 by Dr. Kam Ghaffarian, over the past several years X-energy has moved from promising technology to one of the most commercially successful companies in its field. X-energy's commercial pipeline already exceeds 11 gigawatts, equivalent to about 144 Xe-100 reactors, with customers in the U.S. and the UK and interest from allied markets. In April 2026 X-energy listed on Nasdaq, raising more than $1 billion in the largest nuclear company IPO on record.

Current notable customers include:

> **Amazon.** Amazon's Climate Pledge Fund led X-energy's Series C-1 round, and the two companies aim to bring up to 5 gigawatts of Xe-100 capacity online by 2039 to power Amazon's data centers. The first project is the Cascade Advanced Energy Facility in Washington State, developed with Energy Northwest.

> **Dow.** Dow and X-energy are developing the Long Mott Generating Station, a four-reactor plant at Dow's Seadrift, Texas chemical site. The project is supported by the U.S. Department of Energy's Advanced Reactor Demonstration Program, a cost-share partnership that also helps fund TRISO-X's first fuel fabrication facility.

> **Centrica.** In September 2025, UK energy company Centrica signed a joint development agreement to deploy up to 12 Xe-100s at Hartlepool, England, as the first step toward a planned UK fleet of up to 6 gigawatts.

ABOUT TRISO-X

X-energy not only builds reactors but also fabricates the fuel that powers them. That combination is rare in the industry and is central to the company's long-term strategy. TRISO-X, LLC is X-energy's wholly-owned fuel manufacturing subsidiary, and it’s building the factories that will power the advanced nuclear industry. Fuel is the recurring revenue of X-energy's business model, accounting for over half of the lifetime revenue of a reactor sale. With demand from every Xe-100 sold already anchoring the plan, TRISO-X is expected to become a major growth engine for the whole company. Every Xe-100 reactor X-energy sells will run on TRISO-X fuel for its entire operating life, and a growing number of other reactor developers are designing around the same fuel type. That makes TRISO-X one of the most strategically important advanced manufacturing businesses in American energy.

What TRISO-X makes, in plain terms. TRISO-X fuel starts as a uranium kernel smaller than a poppy seed. Each kernel is coated in four precision-deposited layers of carbon and ceramic, creating a particle about the size of a grain of sand that acts as its own tiny containment vessel. Thousands of these particles are then pressed with graphite into a sphere the size of a billiard ball, called a pebble. The U.S. Department of Energy calls TRISO "the most robust nuclear fuel on earth" because the particles hold up at temperatures far beyond what conventional fuel can tolerate.

The production process will feel familiar to leaders from high-precision industries. It combines wet chemistry, high-temperature furnace and coating operations, powder handling, pressing and machining, automated inspection, and statistical process control, all carried out under strict quality, safety, and security requirements. The disciplines at its core are yield, uniformity, contamination control, and traceability, much as they are in a semiconductor fab or a sterile pharmaceutical plant.



TRISO-X has operated a pilot fuel line at Oak Ridge National Laboratory since 2016 and is now building a multi-site global manufacturing network of fuel fabrication facilities to produce TRISO fuel at scale. The first two of these facilities – TX-1 and TX-2 – will reside in Oak Ridge, TN. Recent milestones include:

Licensed. In February 2026, the NRC issued TRISO-X a 40-year license to manufacture fuel using high-assay low-enriched uranium (HALEU), the first license of its kind ever issued. The single license covers both TX-1 and TX-2, its first two facilities.

Under construction. Construction of TX-1 began in November 2025, and TRISO-X completed vertical construction of the 214,000-square-foot facility in September 2026. Work has now shifted to interior buildout, fuel fabrication equipment installation, and supporting facilities, including an adjacent graphite matrix powder building.

Tested. TRISO-X fuel entered irradiation testing at Idaho National Laboratory's Advanced Test Reactor in late 2025, the first advanced fuel fabricated for commercial use to do so.

Expanding. In August 2026, TRISO-X acquired about 70 additional acres, bringing its Oak Ridge campus to roughly 180 acres. The State of Tennessee's Nuclear Energy Fund awarded a grant in July 2026 to support the campus build-out.

Supply chain. X-energy signed a HALEU supply agreement with Centrus in August 2026 and announced a graphite capacity expansion with SGL Carbon, securing key inputs for fuel production.



THE OPPORTUNITY

X-energy's commercial pipeline already exceeds 11 gigawatts, equivalent to about 144 Xe-100 reactors. To serve that demand and sell fuel to other TRISO-based reactor developers around the world, TRISO-X plans to build a network of seven or more greenfield fuel manufacturing sites. The next President will lead the design, launch, and ramp-up of that network.

X-energy is seeking a President of TRISO-X to take the business from its first factory to a global manufacturing network. Because this challenge has never been attempted before in the nuclear industry, X-energy is very open to leaders with deep experience leading high-stakes advanced manufacturing operations in a variety of different industries. The up-front work of proving the technology and securing the license is largely done. The next chapter is a manufacturing and operations challenge: commission and ramp TX-1, deliver TX-2, and then replicate that playbook at seven or more greenfield sites around the world, on schedule, on budget, and with an uncompromising safety record.

The President will report to X-energy's CEO and lead an organization expected to grow from 400+ employees at TX-1 to well over a thousand across multiple sites. This is a true President role with full P&L accountability. Beyond manufacturing, the President will own TRISO-X's commercial relationships, both as the fuel supplier to every Xe-100 customer and as a merchant supplier selling TRISO fuel to other advanced reactor developers worldwide. The role carries roughly equal weight on two halves of the same mandate: running a first-of-a-kind manufacturing operation with exceptional discipline, and building the business around it, including the customer relationships, contracts, and strategy that turn factory capacity into a durable enterprise. As a senior member of X-energy's leadership team, the President will work directly with the CEO, the executive team, and the board, and will draw on X-energy's shared services in areas such as finance, legal, human resources, supply chain, and commercial while building TRISO-X's own functions where they are needed.



Key responsibilities

Operational ramp. Lead TX-1 through equipment installation, commissioning, NRC readiness inspection, and ramp to full-rate production, delivering fuel to X-energy's customers.

Safety, quality, and compliance. Build a culture in which safety and quality are non-negotiable, and maintain strong, transparent relationships with the NRC, DOE, and international regulators.

P&L and commercial leadership. Own the TRISO-X business plan, budget, and unit economics. Negotiate fuel supply agreements with X-energy's reactor customers and, over time, grow third-party fuel sales to other TRISO-based reactor developers.

External voice. Represent TRISO-X with customers, investors, federal, state, and international officials, and the communities where it operates.

Enterprise partnership. Work as a true partner to X-energy's CEO and executive team so that reactor and fuel plans move in step, while building the leadership team and functions TRISO-X needs to stand on its own at scale.

Network build-out. Develop and execute the plan for TX-2 and a global network of fuel manufacturing sites, including site selection, standardized plant design, capital planning, and a repeatable launch model.

Supply chain. In partnership with X-energy, secure long-term supply of critical inputs such as HALEU uranium and nuclear-grade graphite and build a resilient base of equipment and service suppliers.

People and organization. Recruit, develop, and retain a multi-site workforce, from fuel scientists and engineers to operators and technicians, and build the leadership bench to run each site.

Strategy and vision. Set the long-term strategy for TRISO-X, including the pace and geography of new plants and the path from a first-of-a-kind process to scalable, increasingly automated production.



THE IDEAL CANDIDATE

The next President of TRISO-X will be a proven builder and operator of complex, highly regulated manufacturing operations, and nuclear industry experience is welcome but not required. X-energy already has deep nuclear, fuel science, and regulatory expertise in place. What it needs now is a leader who has stood up new factories, ramped them to high-yield production, and done it more than once.

Strong candidates may come from industries such as pharmaceuticals and biologics, semiconductors, advanced energy and battery manufacturing, aerospace and defense, energetics and explosives, specialty chemicals, advanced materials, or a variety of other industry backgrounds. The common thread is precision manufacturing in an environment where quality failures are not an option and regulators are close partners.

Attributes and qualifications

Multi-site manufacturing leadership. A track record of leading large manufacturing businesses, ideally with 1,000+ people across multiple plants, with accountability for safety, quality, cost, and delivery.

Capital project delivery. Comfortable owning large capital programs and holding construction partners and equipment suppliers accountable for schedule and budget.

Operational excellence. Deep command of process control, yield improvement, automation, and lean or Six Sigma methods, and a demonstrated ability to embed them in an organization. Interest in leading a first-of-a-kind process toward higher levels of automation.

Greenfield and scale-up experience. Has taken new facilities or production lines from construction through commissioning, qualification, and ramp to full-rate production. Experience replicating a plant design across sites, or transferring a process from pilot to commercial scale, is highly valued.

Regulated operations. Has operated under intense regulatory oversight and built a strong compliance culture without sacrificing speed.

Safety and security culture. A personal, visible commitment to safety, with experience handling hazardous or controlled materials in a secure environment.



P&L and commercial acumen. Full P&L ownership or equivalent. Able to build a business plan, manage unit economics, and negotiate long-term supply agreements with sophisticated customers and supply chain partners.

Leadership and communication. Builds and inspires diverse technical teams, develops site leaders, and represents the company credibly with boards, investors, government officials, and local communities.

Execution with urgency. A record of meeting hard milestones and holding teams, partners, and suppliers to them.

Global perspective. Experience launching or running operations outside the U.S., or working across international regulatory regimes, is a strong plus.

Builder's mindset. Energized by creating structure rather than inheriting it. Comfortable making decisions without every answer in hand and providing clarity where none exists yet.

Enterprise orientation. Able to partner with a parent company and its executive team, putting the success of the whole company ahead of the interests of any single unit.

No one will have done every part of this job before. X-energy values leaders who have done the most important parts well and who learn quickly.



WHY THIS ROLE, WHY NOW

Few manufacturing leaders ever get the chance to build an industry. This role offers exactly that.

A defining mission. TX-1 is expected to be the first new commercial-scale advanced nuclear fuel plant built in the U.S. in more than 50 years. The President will lead the effort that makes clean, reliable nuclear power possible at scale.

Momentum and resources. A public company with $1 billion+ in fresh IPO capital, a first-of-its-kind NRC license, strong federal and state support, and blue-chip customers including Amazon, Dow, and Centrica.

A seat at the table. The President works directly with the CEO, the executive team, and the board, and leads a business expected to be central to the company's growth.

Demand already in the door. Orders for X-energy's reactors anchor the plan for TRISO-X, so the work is to deliver and scale, not to go looking for a market.

Your skills, applied to a new frontier. The core disciplines of precision manufacturing (process control, yield, quality systems, and plant replication) transfer directly. X-energy's nuclear experts will provide the domain depth.

Scale. An 11-gigawatt reactor pipeline and a plan for seven or more factories worldwide mean this is a growth mandate, not a maintenance role.

Room to build. You will shape the organization, the operating model, and the culture of a business that is still being defined, with the resources to do it.



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