

# Kairos Power Breaks Ground on Salt Production Facility to Make Molten Salt Coolant for Advanced Reactors

*The latest addition to the company's Manufacturing Development Campus will be key to delivering the Hermes Demonstration Reactor*

ALBUQUERQUE, NM, UNITED STATES, October 2, 2024 /EINPresswire.com/ -- Kairos Power, a leading advanced reactor developer, broke ground today on a Salt Production Facility to be constructed at the company's newly dedicated Manufacturing Development Campus in Albuquerque, New Mexico. The facility will produce high-purity, molten salt coolant for Kairos Power advanced reactors, [starting with the Hermes Low-Power Demonstration Reactor](#) in Oak Ridge, Tennessee.

Kairos Power's fluoride salt-cooled high-temperature reactor technology (KP-FHR) is cooled by a chemically stable mixture of lithium fluoride and beryllium fluoride salts known as "Flibe." The unique heat-transfer medium allows the reactor to operate at low pressure and plays an important role in radiological containment, which contributes to KP-FHR's robust inherent safety and simplifies its design.

Aligned with Kairos Power's iterative development approach, the Salt Production Facility will build upon lessons learned from the [company's Molten Salt Purification Plant](#), which successfully



A rendering of the Salt Production Facility at Kairos Power's Manufacturing Development Campus



Kairos Power leadership and guests break ground at Kairos Power's Salt Production Facility in Albuquerque, New Mexico.

produced 14 tons of unenriched Flibe for the [non-nuclear Engineering Test Unit \(ETU 1.0\) demonstration](#) last year.

The new Salt Production Facility will employ a proprietary chemical process to produce large quantities of high-purity Flibe enriched in Lithium-7 that will meet the stringent specifications to be used inside a reactor.

The Salt Production Facility represents a major investment in Kairos Power's vertical integration strategy. The first-of-a-kind plant will enable future process optimization and establish the competency to scale up reactor-grade Flibe production for the commercial fleet. By internalizing the production of critical components and materials, the company aims to mitigate supply chain risk, accelerate deployment, and deliver its advanced reactor technology with cost and schedule certainty.

Kairos Power expects to create 20-30 full-time, high-paying jobs to support the construction and operation of the Salt Production Facility. The project's general contractor is TIC-The Industrial Company, a subsidiary of Kiewit Corporation.

The Salt Production Facility is one of three projects receiving support from the City of Albuquerque and the State of New Mexico via economic incentives approved in September. The project will also use funding from the Department of Energy's Advanced Reactor Demonstration Program to supplement Kairos Power's substantial private investment.

On the same day Kairos Power broke ground on the Salt Production Facility, the company held a dedication ceremony for its Manufacturing Development Campus. Guests toured the company's facilities and heard remarks from local, state, and federal leaders celebrating the transformational site where Kairos Power is piloting key manufacturing capabilities to enable the



Kairos Power CEO and co-founder Mike Laufer speaking at the Manufacturing Development Campus dedication ceremony in Albuquerque, New Mexico, on Wednesday, Oct. 2.



A collage of the manufacturing abilities at Kairos Power's newly dedicated Manufacturing Development Campus

clean energy transition.

Kairos Power opened its Albuquerque location in 2020, acquiring the former Schott solar panel factory and 32 acres of land in the Mesa del Sol development to accommodate future expansion. In four years, the company has made over \$125 million in capital investments at the site and more than doubled its initial hiring commitment with a current headcount of 130+ full-time employees.



An aerial shot of Kairos Power's Manufacturing Development Campus in Albuquerque, New Mexico

The campus hosts facilities for advanced reactor component manufacturing, U-stamped pressure vessel production, modular reactor construction, fuel fabrication process development, and large-scale, non-nuclear testing, with more to come.

### What People Are Saying

"Kairos Power is thrilled to continue expanding in New Mexico as we work to enable the world's transition to clean energy," said Kairos Power CEO and co-founder Mike Laufer. "As global energy demand surges, we are driven by the imperative to move quickly in our mission. The pioneering capabilities and the incredible team we are celebrating today will make that possible."

"The facilities we are building in Albuquerque will play a pivotal role in deploying Kairos Power's clean energy technology with robust safety at an affordable cost," said Kairos Power Chief Technology Officer and co-founder Ed Blandford. "With the addition of molten salt coolant production, Kairos Power's Manufacturing Development Campus will soon have all the capabilities we need to deliver the Hermes demonstration reactor and establish a credible path to scale up production for the commercial fleet."

"This Salt Production Facility is not only a first for Kairos Power, but for the U.S. nuclear industry," said Alan Kruizenga, Vice President, Salt. "This innovative facility establishes domestic production capacity for critical materials that will reduce our dependence on foreign suppliers. Building a domestic supply chain for Flibe is a significant hurdle to clear, but we believe it's achievable. We are thrilled to start constructing this new facility that will allow us to control our destiny."

"Advanced Energy is the most important economic development priority of my administration," said Governor Michelle Lujan Grisham. "Without clean energy, we simply won't be able to meet our climate goals and ensure a safe future for all New Mexicans. Kairos Power is developing a next generation of safer nuclear reactor technology that will help us achieve our economic development and climate goals."

"I'm proud to welcome this expansion of Kairos Power's advanced manufacturing campus in Albuquerque," said Senator Martin Heinrich. "Kairos is a great example of a private company harnessing expertise from Los Alamos and Sandia National Labs to create technologies that will power our carbon-free energy future. I will keep working to support advanced energy technologies and manufacturing in New Mexico. Together we are creating high-quality careers that New Mexicans can build their families around and moving toward a cleaner, healthier, and more affordable energy future."

"For decades we dreamed of Albuquerque being at the center of the renewable economy, that dream is more and more becoming reality," said Mayor Tim Keller. "We have the right workforce and the right location to be the home of the clean energy manufacturing, and Kairos brings more good-paying jobs for Albuquerque families."

"Kairos Power continues to make impressive strides towards demonstrating the Hermes reactor," said acting Deputy Assistant Secretary of Nuclear Reactors Brian Smith. "DOE is pleased with the company's progress on its Advanced Reactor Demonstration Program Risk Reduction project, and we look forward to seeing what Kairos accomplishes next."

#### About Kairos Power

Kairos Power is a mission-driven nuclear technology, engineering, and manufacturing company singularly focused on commercializing the fluoride salt-cooled, high-temperature reactor (KP-FHR) – a clean energy solution that can be deployed with robust safety at an affordable cost to enable deep decarbonization. Founded in 2016, the company is unique in applying a rapid iterative development approach and vertical integration strategy to bring advanced reactor technology to market. In 2023, the U.S. Nuclear Regulatory Commission issued a construction permit for Kairos Power's Hermes demonstration reactor – the first non-water-cooled reactor to be approved for construction in the U.S. in more than 50 years. Kairos Power's mission is to enable the world's transition to clean energy with the ultimate goal of dramatically improving people's quality of life while protecting the environment. Learn more at [kairospower.com](https://kairospower.com).

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