

U.S. Department of Energy to Provide HALEU for Hermes Demonstration Reactor

Allocated HALEU to support Hermes reactor startup and operation in Oak Ridge

DC, UNITED STATES, January 20, 2026 /EINPresswire.com/ -- Kairos Power has finalized a contract with the U.S. Department of Energy (DOE) to receive High-Assay Low-Enriched Uranium (HALEU), sourced from DOE material, for the startup and operation of the company's Hermes Low-Power Demonstration Reactor (Hermes 1), currently under construction in Oak Ridge, Tenn.

Kairos Power was [conditionally selected](#) by DOE to receive HALEU earlier this year under the agency's HALEU Availability Program and has successfully completed negotiations to secure the HALEU required for the Hermes 1 program. The company will use the material to produce HALEU TRISO fuel pebbles for Hermes 1 [in partnership with Los Alamos National Laboratory](#), using manufacturing processes developed and optimized in Kairos Power labs. The Hermes 1 reactor and fuel fabrication program will provide crucial learning to enable the success of Kairos Power's future commercial fleet.



Caption: The Hermes Low-Power Demonstration Reactor is under construction in Oak Ridge, Tenn.

"We are pleased to secure the HALEU we need to demonstrate our technology with Hermes 1," said Edward Blandford, Kairos Power Chief Technology Officer and co-founder. "The U.S. Department of Energy has been a vital partner on the Hermes project, with its ongoing risk

reduction investment through the Advanced Reactor Demonstration Program. The allocation of HALEU will enable continued progress on Kairos Power's path to delivering affordable advanced reactors at scale."

"DOE's support allows us to keep up our momentum, as we drive toward a shared goal of unlocking advanced nuclear energy's potential and accelerating U.S. reactor deployment," said Mike Laufer, Kairos Power Chief Executive Officer and co-founder. "We appreciate DOE's continued commitment to our iterative development process, helping us secure a reliable source of HALEU to meet our near-term fuel needs."

"The Department of Energy's HALEU allocation program is helping U.S. nuclear reactor developers meet their near-term fuel needs," said acting Deputy Assistant Secretary for Nuclear Fuel Cycle Florence Knauf. "We're excited to see Kairos Power finalize their contract to receive HALEU and look forward to seeing them move forward with the fabrication of TRISO fuel for Hermes 1."

Kairos Power broke ground at the Hermes 1 site in July 2024 and began [nuclear safety-related construction](#) in May 2025. Hermes 1 is the first non-light-water reactor to be approved for construction by the U.S. Nuclear Regulatory Commission.

DOE is investing up to \$303 million in the project through the Advanced Reactor Demonstration Program (ARDP) under a performance-based milestone contract. Kairos Power met two ARDP milestones in the last year, with the installation of reactor vessels for two non-nuclear hardware demonstrations that will test the integration of reactor systems, help establish the supply chain, and generate operating experience to inform the Hermes reactor series.

Through Kairos Power's iterative development approach, the learning from Hermes 1 will directly enable the commercial-scale Hermes 2 Demonstration Plant and help de-risk technology, licensing, manufacturing, and construction for Kairos Power's commercial fleet.

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 2025, Kairos Power commenced safety-related construction of the Hermes demonstration reactor – the first non-water-cooled reactor to be approved for construction in the U.S. in over 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 kairopower.com.

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