



Kairos Power Announces New Collaboration to Advance Nuclear Manufacturing, Construction, and Workforce in East Tennessee

OAK RIDGE , TN, UNITED STATES, August 18, 2026 /EINPresswire.com/ -- Kairos Power today announced the Nuclear Center for Advanced Manufacturing and Precast (NuCAMP), an initiative focused on maturing new manufacturing and construction methods and developing vocational training for skilled workers in East Tennessee to support the deployment of advanced nuclear reactors.

Under a signed Memorandum of Understanding (MOU), Kairos Power will lead the initiative in collaboration with Oak Ridge National Laboratory (ORNL), the University of Tennessee-Knoxville, the Institute for Advanced Composites Manufacturing Innovation (IACMI), Barnard Construction, Roane State Community College, Chattanooga State Community College, and Oak Ridge Schools.

In addition, Kairos Power and international collaborators Samsung C&T Engineering & Construction Group and Cambridge Vacuum Engineering are exploring opportunities to collaborate on the NuCAMP initiative by providing strategic advisory services in advanced manufacturing and construction.

The organizations have agreed to an initial 12-month exploration phase to determine how they can best work together to develop programs to qualify advanced manufacturing and construction methods for nuclear applications and create career pathways for engineers and skilled tradespeople to put those methods into practice.

“Delivering affordable advanced reactors at scale will require more than a strong design. We need innovative manufacturing processes, the code basis to qualify them, and people with the right skills to apply them in building new nuclear facilities,” said Ed Blandford, Chief Technology Officer and co-founder of Kairos Power. “By combining industry perspectives with the R&D power of our national labs and the strengths of our academic partners through NuCAMP, we can create new capabilities that will benefit the entire Tennessee nuclear community and the broader industry at large.”

“NuCAMP reflects the power of East Tennessee’s innovation ecosystem—industry, a national

laboratory, and educational institutions working together to solve real deployment challenges,” said Dr. Stephen Streiffer, Director of Oak Ridge National Laboratory (ORNL). “Through DOE’s Manufacturing Demonstration Facility (MDF) at ORNL and our broader research capabilities, we look forward to helping mature advanced manufacturing and construction methods for the nuclear industry while supporting the workforce needed to bring next-generation reactors to market.”

“I am excited for the Tickle College of Engineering to be a part of such a comprehensive partnership at many levels of education, research, and development,” said Dr. Matthew Mench, Dean of the Tickle College of Engineering. “I can’t wait to see what this partnership can accomplish during a time where transformational advances in reactor engineering and construction are greatly needed.”

A new approach to nuclear construction

NuCAMP takes a holistic approach to bringing promising manufacturing and construction methods to the U.S. nuclear industry, incorporating the perspectives of research and development partners, workforce partners, and the companies actively building advanced reactor projects.

Kairos Power, MDF, the University of Tennessee’s Tickle College of Engineering, and IACMI will provide research, engineering, and manufacturing expertise to advance the technologies and address code gaps that currently limit their use in nuclear construction.

Research priorities include but are not limited to:

- Precast concrete construction for safety-related nuclear structures
- Large-format additive manufacturing to create customized forms for producing precast concrete components
- Wire-arc additive manufacturing to produce vessel sections, nozzles, pump parts, and other large components
- Electron beam welding to join large metal components with limited distortion

Through NuCAMP, teams will explore opportunities to work together to develop technical information to support code, regulatory, and licensing engagement for the innovative new technologies, which are not fully qualified under industry codes governing safety-related nuclear structures and components.

New workforce development opportunities

NuCAMP also plans to explore how its member organizations can partner to develop new education and training programs for engineers and skilled tradespeople as new manufacturing and construction methods mature.

The University of Tennessee-Knoxville will evaluate two proposed master's degree programs: one focused on manufacturing engineering for factory-based nuclear production and another on precast concrete construction.

Chattanooga State and Roane State will assess options to add specialized training for nuclear piping welders, precast production technicians, skid manufacturing technicians, and other roles. Oak Ridge Schools will explore expanding its advanced manufacturing and trades pathways for middle and high school students.

Together, the programs are intended to create accessible career pathways for Tennessee students and tradespeople, gaining valuable experience working with university faculty, national lab researchers, and industry professionals to develop skills tailor-made to enter the advanced nuclear industry.

Building on East Tennessee's strengths

Kairos Power's Reactor Demonstration Campus in Oak Ridge will host NuCAMP and provide facilities for manufacturing development, workforce training, and collaboration with nearby research and education partners.

The campus includes space planned for precast production, equipment assembly, welding, and additive manufacturing.

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 applying a rapid iterative development approach and vertical integration strategy to bring advanced reactor technology to market. In 2023, Kairos Power received the first U.S. construction permit for a non-water-cooled reactor to be issued in over 50 years. Kairos Power broke ground in April 2026 on the Hermes 2 Demonstration Plant in Oak Ridge, Tennessee, which will supply 50 MW of clean electricity to the TVA grid under a multi-plant development agreement with Google.

Kairos Power's mission is to enable the world's clean energy transition to improve people's quality of life while protecting the environment. Learn more at kairospower.com.

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