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.

In order to achieve this mission, we must prioritize our efforts to focus on a clean energy technology that is affordable and safe.
Overview of Kairos Power

• Nuclear energy engineering, design, and manufacturing company *singularly focused* on the commercialization of the fluoride salt-cooled high-temperature reactor (FHR)
  ◦ Founded in 2016
  ◦ 320 Employees

• Novel approach to nuclear development, highly informed by the success of SpaceX, that includes iterative hardware demonstrations and in-house manufacturing to achieve disruptive cost reduction and provide true cost certainty.

• Cost targets set to be competitive with natural gas in the US electricity market.

• Schedule driven by US demonstration by 2030 (*or earlier*) and rapid deployment ramp in 2030s.
A low-carbon baseload alternative is needed to replace natural gas
Coated Particle Fuel
TRISO

Liquid Fluoride Salt Coolant
Flibe (2LiF-BeF₂)
Kairos Power Workstreams

Reduce risk and build cost certainty

- Reactor Design
- Test Program
- Licensing
- Fuel Development
- Salt Development

Technology Certainty

Licensing Certainty

Supply Chain Certainty

Build Certainty

Cost Certainty

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Kairos Power is investing in testing and manufacturing infrastructure to accelerate iterative hardware demonstrations and lay the groundwork for future success.
Kairos Power Path to Commercialization

Successive Large-Scale Integrated Demonstrations

KP-X Commercial Plant
140 MWe/Unit

U-Facility Reactor Demonstration Unit
(Non-Nuclear)

Hermes Reactor

Engineering Test Unit Series
(Non-Nuclear)
Hermes Demonstration Reactor

Heritage Center K-33 Site / Oak Ridge, TN

**Primary objective:** To prove Kairos Power’s ability to deliver low-cost nuclear heat

**Operational in 2026**

**Major accomplishments to date:**
- $300M DOE award (*Dec 2020*)
- Site acquisition (*Jul 2021*)
- Construction permit application submission to U.S. Nuclear Regulatory Commission (*Nov 2021*)
Enabling the world’s transition to clean energy
while improving people’s quality of life
and protecting the environment