




# Kairos Power

## Non-Power and Advanced Reactors: Merging of Two Worlds

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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.

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

# Introducing 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
  - Current Staffing:
    - 244 Employees (*and growing*)
    - ~90% Engineering Staff
- Private funding commitment to engineering design and licensing program and physical demonstration through nuclear and non-nuclear technology development program.
- Schedule driven by the goal for U.S. commercial demonstration by 2030 (or earlier) to enable rapid deployment in 2030s.
- Cost targets set to be competitive with natural gas in the U.S. electricity market.

Kairos Power Headquarters



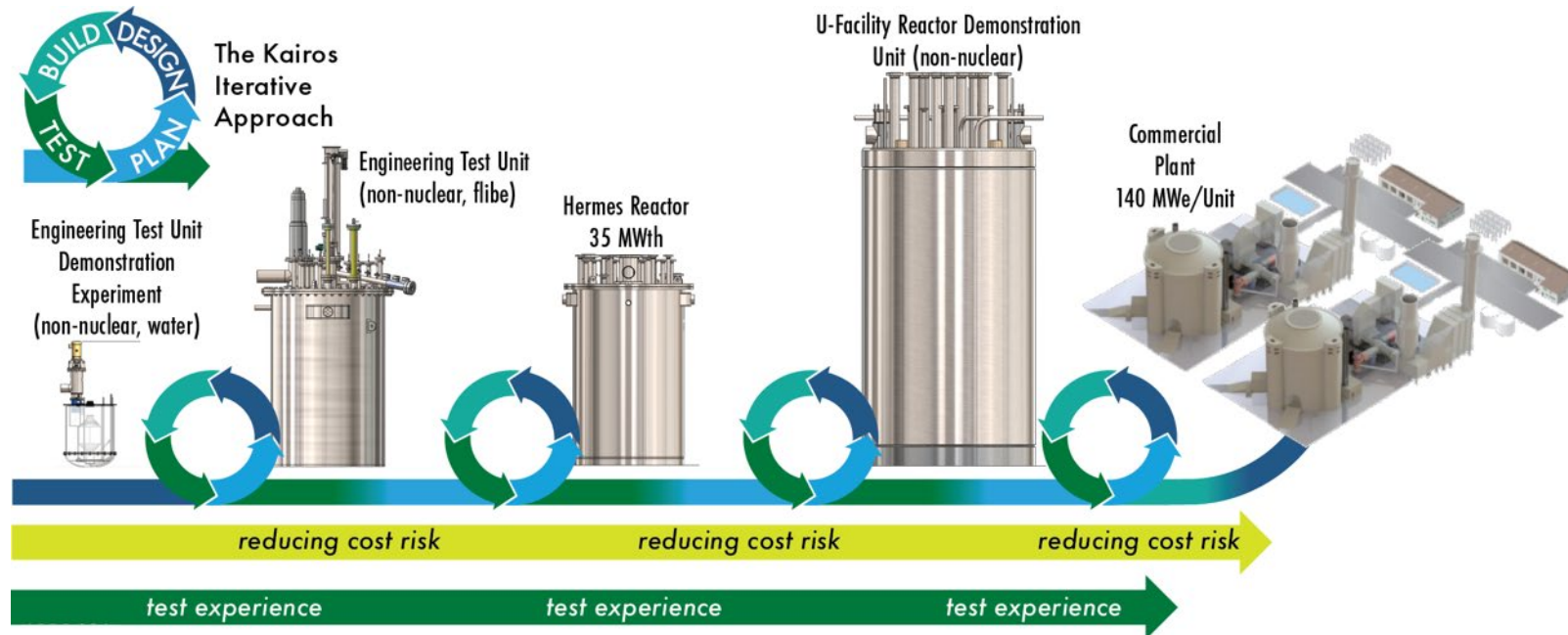
Kairos Power Team





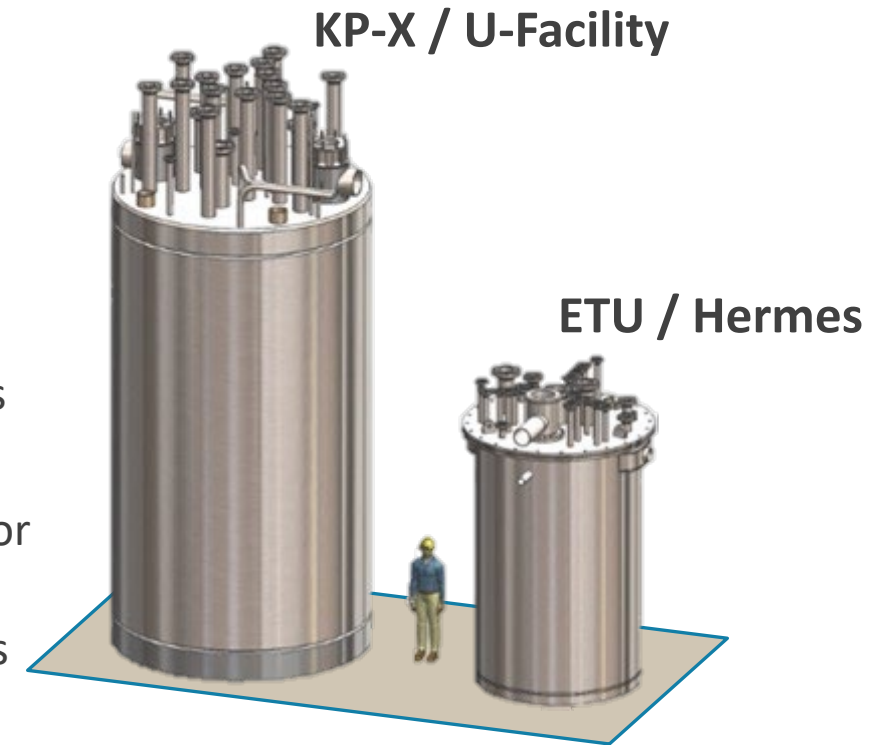
# Kairos Power Design Approach

- Kairos Power believes *“hardware is worth 1000 calculations”* and ETU will be the proof case for this philosophy since it integrates all the major systems of Hermes in a non-nuclear environment
- Iterative strategy is supported by capabilities in Material Testing, Tritium Testing, Chemistry Control, Mod/Sim, Core Design and Neutronics, and Instrumentation and Controls



# Kairos Power Hermes Reactor Overview

- What?
  - A **low power demonstration reactor** that will prove Kairos Power's capability to deliver low-cost nuclear heat
- Why?
  - **Cost:** Establish competitive cost through iterative learning cycles
  - **Supply Chain:** Advance the supply chain for KP-FHR specialized components and materials while vertical integrating critical systems
  - **Design / Test:** Deliberate and incremental risk reduction
  - **Licensing Approach:** NRC will license Hermes as a non-power reactor and facilitate licensing certainty for KP-FHR
  - **Operations:** Provide a complete demonstration of nuclear functions including reactor physics, fuel and structural materials irradiation, and radiological controls



*Hermes will ultimately demonstrate the U.S. aptitude to license an advanced reactor in a timely manner*

# KP-FHR Licensing Strategy

