

New Mexico

2025



#### Overview of Kairos Power

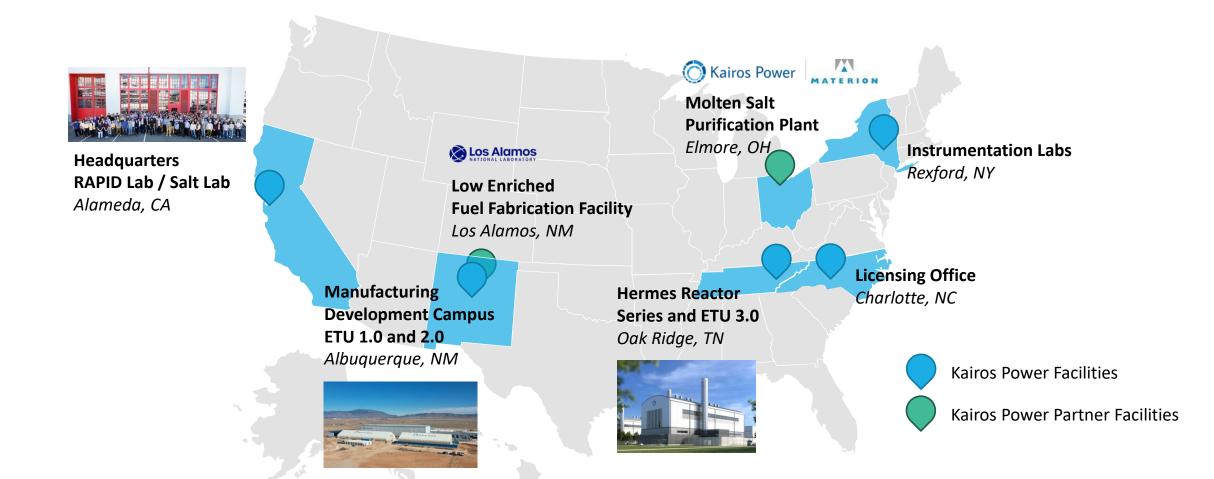
- Nuclear energy engineering, design, and manufacturing company singularly focused on the commercialization of the fluoride salt-cooled high-temperature reactor (FHR)
  - Founded in 2016
  - 500+ Full Time Employees
- Novel approach to nuclear development that includes iterative hardware demonstrations and in-house manufacturing to achieve disruptive cost reduction and provide true cost certainty
- Schedule driven by US demonstration by 2030 (or earlier) and rapid deployment ramp in 2030s
- Cost targets set to be competitive with natural gas in the US electricity market

#### **Kairos Power Headquarters**





## Kairos Power Locations and Infrastructure



# Fluoride Salt-Cooled High Temperature Reactor

Technology Basis



Coated Particle Fuel TRISO



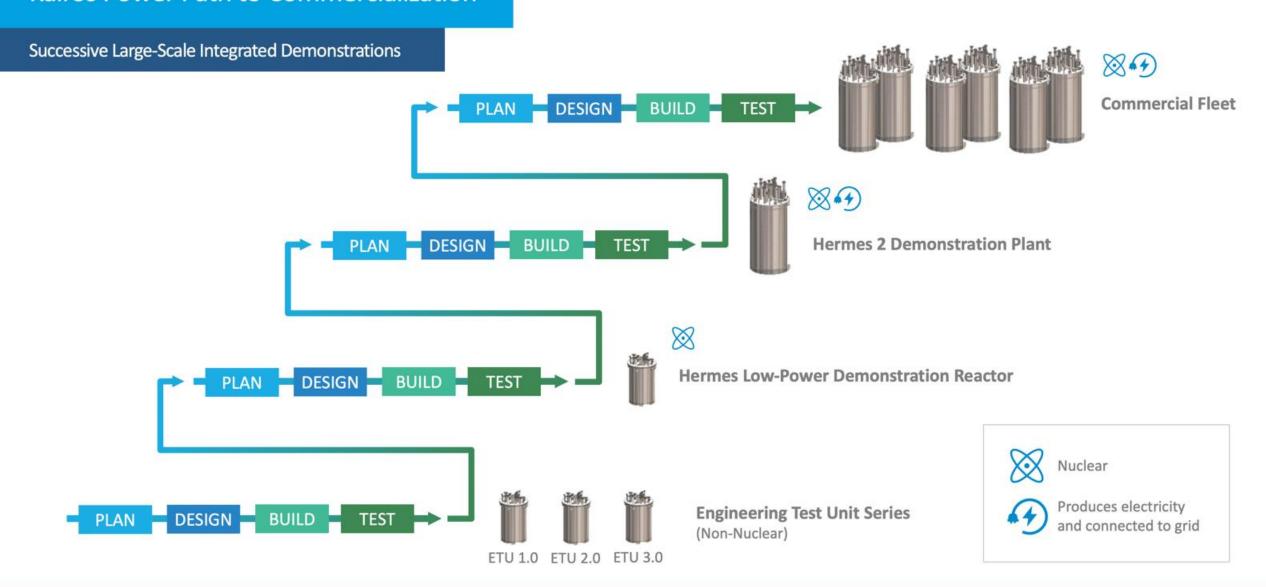
# 1 fuel pebble = 4 tons of coal





Liquid Fluoride Salt Coolant Flibe (2LiF-BeF<sub>2</sub>)

## Kairos Power Path to Commercialization



### Welcome to KP Southwest

- LOCATION: Former Schott Solar Building
  - Hawking Drive SE
  - Acquired in 2019
- 32-acres of land for future expansion
- Existing building: 132,000 ft<sup>2</sup>
  - Warehouse: 110,548 ft²
  - Employee/Office area: 1,887 ft<sup>2</sup>
  - Data Center: 9,575 ft²
- T-Facility (annex): 40,000 ft<sup>2</sup>





### Albuquerque Job Creation Highlights



#### Recruitment and Engagement:

 Kairos Power partners with New Mexico Workforce Connection, universities and community colleges, and local/national events to hire directly into the Mesa del Sol area

### Investing in People

- Kairos Power provides career-level development opportunities and continuously evaluates compensation & benefits programs to ensure market alignment
- Average local salary is over \$100,000

### Community Outreach

Internship opportunities with hands-on training and mentorship

## Expanding partnerships

Middle schools, high schools, and underserved communities

### Key Investments in Infrastructure

- Over \$125M in capital investments to date
  - Completed projects:
    - T-Facility
    - Pebble Development Lab (PDL)
    - Manufacturing shop & equipment
    - Engineering Test Unit 1.0 and control room
  - Current headcount more than double the initial commitment of 65 full-time jobs
- Kairos Power additional commitment of up to \$300M in capital investments
  - New capabilities being added:
    - Modular Systems Facility
    - Salt Production Facility
    - TRISO Development Lab
  - Addition of 100 full-time jobs







# Manufacturing

Vertical Integration







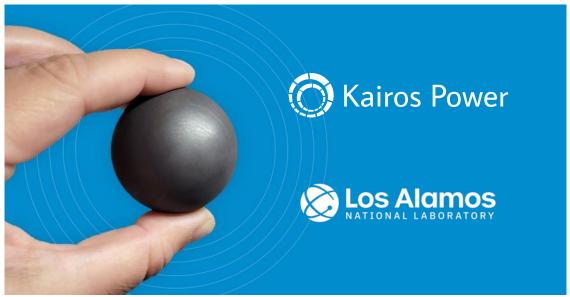




# Flibe & Fuel Production

**Vertical Integration** 



















## **ETU 1.0 Testing Progress**

#### 2,000+ Hours of Pumped Salt Operations

### ETU 1.0 testing highlights at 550+°C:

- Loaded 12 metric tons of molten salt into the largest Flibe system ever built
- Demonstrated online refueling with surrogate fuel via the Pebble Handling and Storage System
- Achieved highest-ever Flibe flow rate up to 3,000 GPM
- Logged over 25,000 strokes of the Reactivity Control System
- Commissioned a first-of-its-kind chemistry control system to continuously monitor purity of Flibe in the system
- Deactivation & decommissioning completed Dec 2024
  - ETU enclosure successfully cleaned and released with zero beryllium exposure to personnel









Lessons learned from the ETU program will inform the design and operation of the Hermes demonstration reactor in Tennessee

# **Engineering Test Unit 2.0**

#### Piloting Modular Construction

- ETU 2.0 builds on learnings from ETU 1.0 to further mitigate development risk and accelerate operational experience in a large-scale Flibe facility
  - ✓ Modular design comprising 30+ plant equipment skids
  - √ First reactor vessel produced in-house by Kairos Power
  - Automated production of surrogate fuel pebbles









The Pre-Commission, Install, Test, and Assemble (PITA) team is building ETU 2.0 equipment skids in the Modular Systems Facility at Kairos Power's Albuquerque campus.



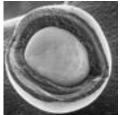




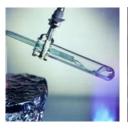
# Albuquerque Expansion Supports Hermes

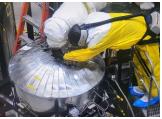
#### **Fuel Fabrication R&D**











**Advanced Reactor Component Manufacturing** 





**Modular Reactor Construction** 





**Graphite Machining** 



**Vessel Manufacturing** 





Components and materials manufactured in Albuquerque, New Mexico will directly support the Hermes Low-Power Demonstration Reactor in Oak Ridge, Tennessee



# Google and Kairos Power Partner to Deploy 500 MW of Clean Electricity

#### First Corporate Agreement for Multiple Advanced Reactor Deployments

- Kairos Power and Google have signed a Master Plant Development Agreement, creating a path to deploy a U.S. fleet of advanced nuclear power projects totaling 500 MW by 2035
- Under the agreement, Kairos Power will develop, construct, and operate a series of advanced reactor plants and sell energy, ancillary services, and environmental attributes to Google under Power Purchase Agreements (PPAs)
- This innovative, multi-plant agreement supports technology development by extending Kairos Power's iterative demonstration strategy through its first commercial deployments





### **KP-OMADA Advanced Nuclear Alliance**







collaborate on the advancement

of KP-FHR technology.















## Kairos Power's Commitment to the Community

#### **Embedded in Our Mission**

Everything we do at Kairos Power is driven by our mission to **improve people's quality of life** while protecting the environment

#### **Our Commitment:**

- Deliver clean, reliable energy with minimal land and water use
- Selectively build on brownfield sites
- Engage and support local communities by:
- ✓ Investing in workforce development and education
- ✓ Offering high-paying, highly skilled jobs
- ✓ Creating opportunities for a diverse local supplier base













