
ANTARES

WHO WE ARE

# Antares is redefining nuclear energy.

***01.***

We design and build factory mass-producible, heat pipe–cooled **micro nuclear reactors** to power critical infrastructure — safely, efficiently, and reliably.

***02.***

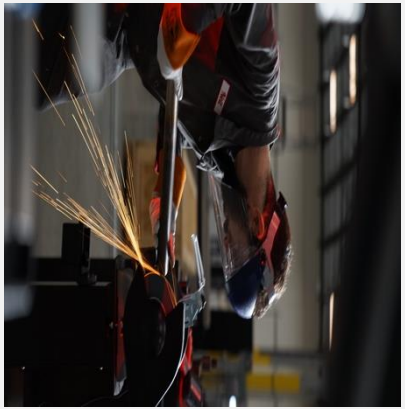
Our **multidisciplinary team** of 60+ experts from nuclear, aerospace, and defense industries is designing, manufacturing, and testing under an NQA-1 program.

***03.***

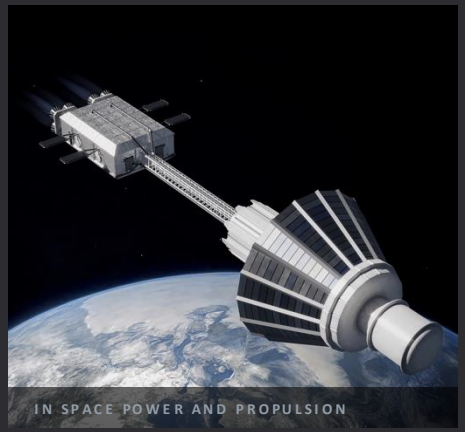
Our **defense-first focus** de-risks supply chains and provides access to a first-move energy market. Antares is partnering with DOD customers and winning contracts to prove our technology.

***04.***

322,000 sq. ft. facility, in Torrance, CA, capable of producing our first 50 reactors.



# "Strategic Energy" is our mission

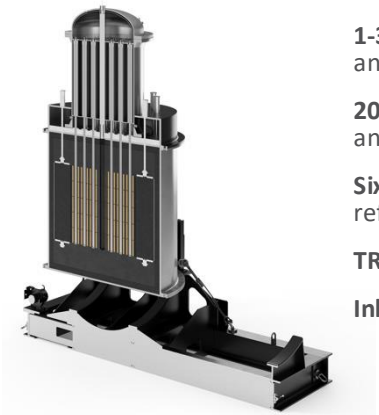





## STRATEGIC ENERGY

- Enable **critical mission capabilities** that are impossible without nuclear power.
- Target 100 kWe - 2 MWe to power critical assets like **missile defense sites and counter-space systems**
- Unlock clean, resilient, supply chain free power on **earth and in space**.
- Deliver **complete integrated solution to unlock mission effect**, not just a "box of power"

# R1 Reactor



## Reactor

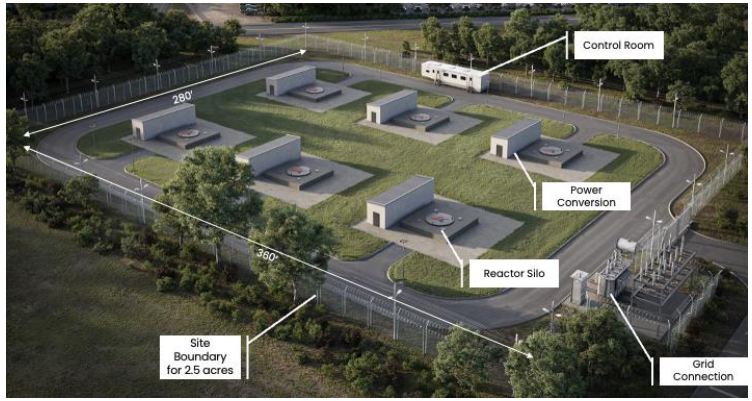
**1-3.3 Megawatt thermal**. Capable of co-generation of **heat** and **electricity**. Scalable to higher power levels.

**200-1000 Kilowatts electric** for critical infrastructure resilience and remote power.

**Six effective full-power years** of clean energy without refueling.

**TRISO** Fuel (19.75% U-235).

**Inherent safety** with Generation IV technology




## Site

**Deployable** to remote and austere locations

**Minimal site** footprint for co-location with user facilities

**Power and heat** applications can be custom configured

**Safety and security** with integrated protective features for radiation and external threats

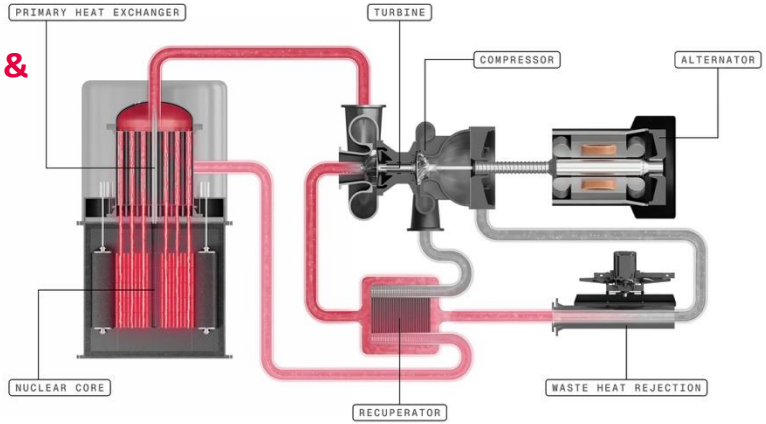
**Scalable** to power larger sites with co-location of multiple reactors

## Power Conversion & Process Heat

Closed-loop nitrogen **Brayton cycle** provides provides reliable power power in a wide range of of environments.

**Process heat** available at available at

- 825 °C
- 575 °C
- 200 °C



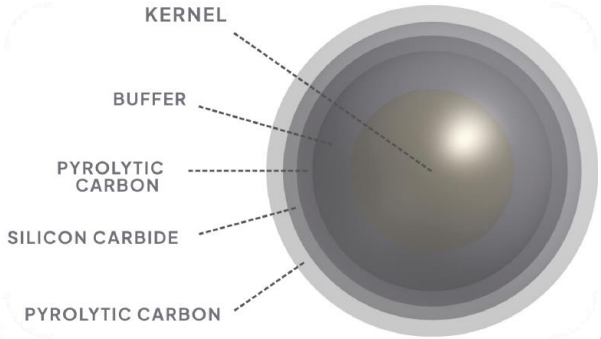

## Logistics

Transportable by tractor-trailer, barge, and rail.

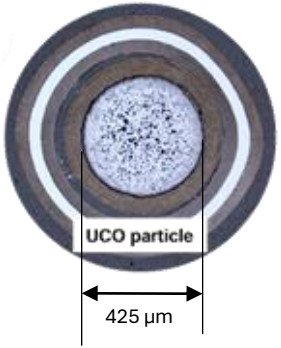
# Safety is Founded in Our Fuel

"The Most Robust Nuclear Fuel on Earth" - DOE Office of Nuclear Energy

TRISO Fuel Compact

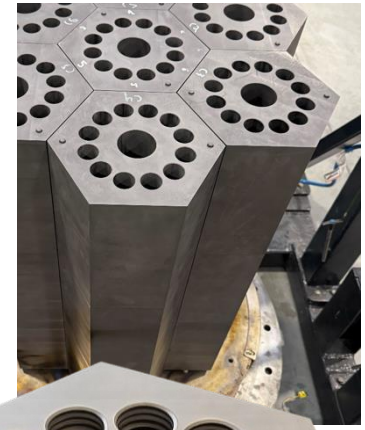



TRISO Fuel Particles





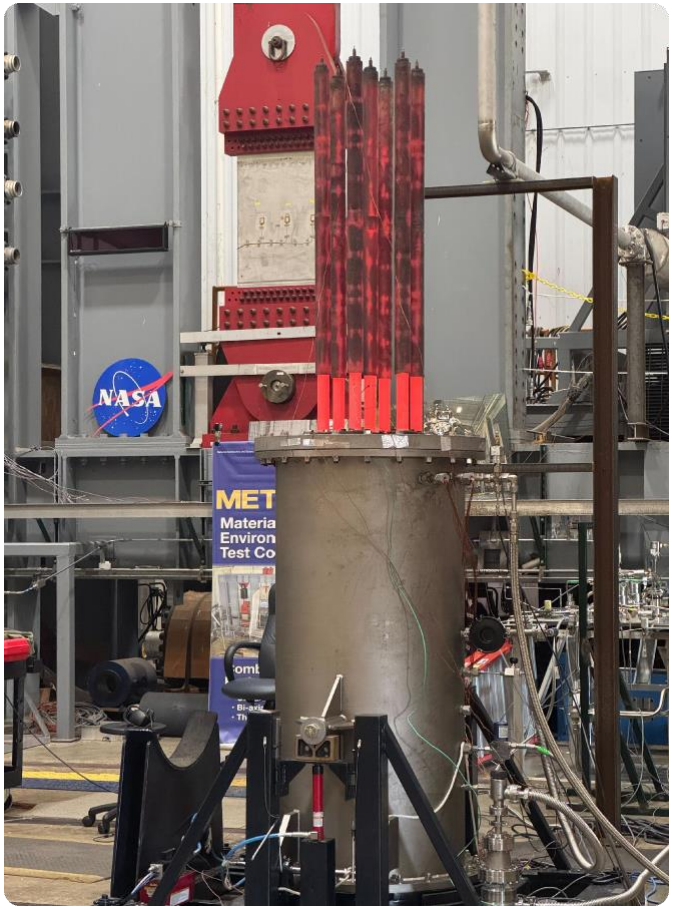
Modular Graphite Block Core Structure



**DOE allocated our HALEU and BWXT is fabricating our fuel**

# We are building and testing our hardware



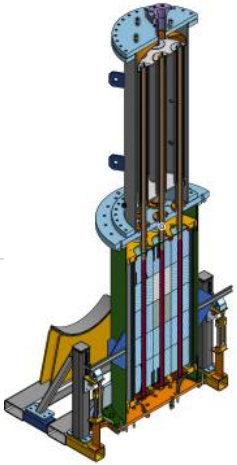


# We differentiate through demonstration

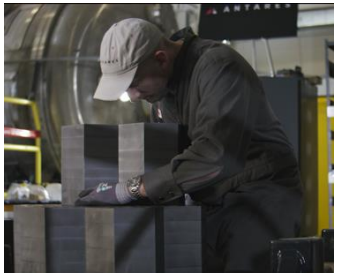
Between **electrically heated** systems and **full nuclear demonstration** units, Antares intends on building multiple multiple prototypes prior to fielding the first production unit. unit.

A subscale **electrically-heated reactor core + heat exchanger** prototype has been demonstrated up to 800 °C. Additional tests will continue through 2029.

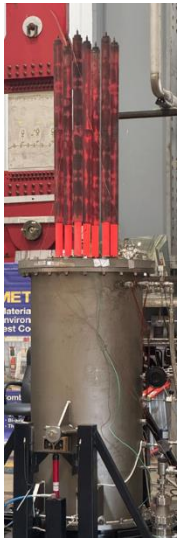
**Design**



**Build**



**Test**



## Deploying nuclear pilot reactor by July 4, 2026

- Funded by Antares under $40M contract to INL
- HALEU allocated by DOE; TRISO fuel fabrication underway at BWXT
- Preliminary Documented Safety Analysis (PDSA) **approved** by DOE

## Operating **power reactor producing electricity and heat from nuclear energy** in **2027**

- Conceptual design accepted by INL
- Power conversion system in development

We are exercising the **Department of Energy licensing** pathway, which will accelerate regulatory review for Department of War and Nuclear Regulatory Commission.

Low-rate **production units** will be available by **2028**.

# We have raised over $130M in private capital and have multiple government awards

## AFNWC

Evaluate Antares R1 microreactor for resilient infrastructure power; deliver a comprehensive demonstration data package by June 2026.

## AFWERX

Assess Antares R1 microreactor for Air Force missions; deliver comprehensive design review by July 2026.

## SPACEWERX

Adapt Antares R1 architecture into a space reactor for power/propulsion; deliver design review in July 2026.

## DIU

**Advanced Nuclear Power for Installations (ANPI)**
Mature and demo Antares R1 for DoW installations to enable follow-on on-base reactor deployments.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# How we will accomplish our first demonstration

https://youtu.be/FNvWz1SETq0?si=enSVXtdbR1T_tGyK

https://youtu.be/iCkwFUJcvUE?si=6tPPUzt3EWaBlMFM