

Reimagining the Nuclear Industry with AI

RIC 2026

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Up to **30%**
operational cost reduction with AI predictive maintenance, automation, and digital twin technologies

194%
increased demand for nuclear professionals by 2035

OEM Nuclear-Specific generative AI accelerates upskilling

60%
of the cost of a new AP1000 is construction

AI can de-risk construction schedules

AI Predictive modeling Improves Safety and Quality

★★★
With AI applications across the entire industry

Traditional New Build Licensing.

10 Yrs. + \$100M

AI-powered licensing support can reduce this dramatically



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AI Will Dramatically De-risk Nuclear New Construction

To build the capacity the world demands



AI Will Unlock New Fuels Innovations

To make fuels safer, more efficient and even easier to manufacture

[LEARN MORE](#)



AI Everywhere: Supercharging Operations

Instant intelligence, improving reliability, optimizing performance

A hand is shown from the bottom, cupping a glowing, golden-yellow orb. The background is dark with a faint rainbow arc visible on the right side. The overall mood is one of care and responsibility.

Ensuring Ethical AI

Creating AI trust and transparency for the world's most regulated industry

With the HiVE System Powered by bertha AI, We Develop **Game-Changing** Solutions

CUSTOM SOLUTIONS & SERVICES

AI-Powered Process Optimization

- Recommends optimal fuel loading patterns & refueling
- Maximizes reactor power output & minimizes fuel usage

Joint Simulation & Modeling R&D

Reduce risks and improve safety, efficiency, training, compliance and prototyping

Safety & Security

Anomaly detection identifies unusual patterns in data to detect potential safety hazards

Predictive Maintenance

Advanced algorithms and machine learning anticipate equipment failures before they occur

WESTINGHOUSE AI-EMPOWERED SOLUTIONS

CMIS

Use our **bertha Generative AI** natural language to accelerate new design package queries & gain insights from knowledge base

Westinghouse IQ

Uses our **bertha Generative AI** model, to explore non-proprietary information on Nuclear Power Plants for public consumption using natural language

Advanced Condition Monitoring

AI predicts equipment failures & schedules maintenance before issues arise

- Vibration analysis
- Thermal imaging
- Radiation monitoring

Regulatory Licensing Accelerator

Save thousands of hours & shave millions in costs with our **bertha Generative AI** regulatory licensing accelerator

What Will You Get With The Hive AI System?

Increased Reliability

From digital twin simulations to predictive maintenance and operational efficiency, the Westinghouse HiVE AI System can dramatically change the way you think about managing your nuclear operations.

Save \$\$

Streamlining is built into every aspect of the HiVE AI System, creating incredible cost saving opportunities in every single application.

Optimized Operations

There are so many ways that the HiVE AI System can help you optimize operations. If you can imagine it, the HiVE System can do it.

Enhanced Safety

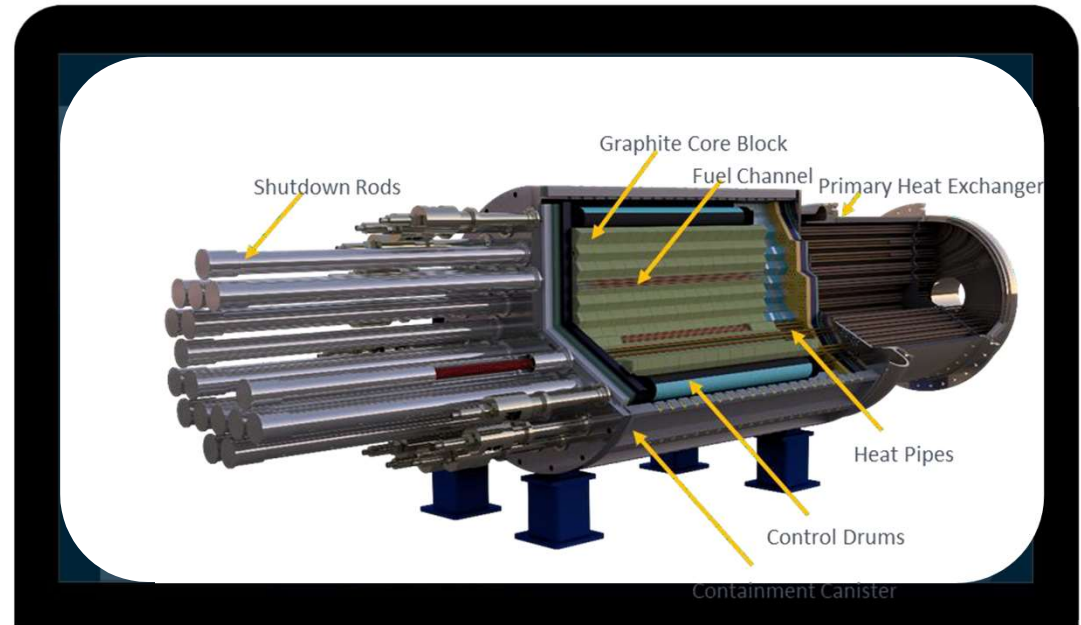
Real-time monitoring helps detect anomalies that can cause safety issues, alerting operators immediately.

«...And More...»

01. Gen AI Helps Reduce Time & Cost to License eVinci™ Micro-Reactor

- ○ Create new site licenses faster with generative AI
- Combines NRC licensing data, current project data & Westinghouse data to accelerate generation of licensing documentation
- Generate entire documents with parallel gen AI models
- Draft large documents ready for human authorship within existing licensing workflow

Empowered by
bertha™
Generative AI Model





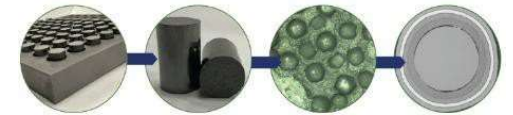
- Reliable**
Reactor core is designed to run for eight or more full-power years before refueling
- Sustainable**
Each eVinci microreactor will reduce up to 55,000 tons of CO₂/year
- Safe**
Designed with diverse and redundant safety features, from TRISO to passive heat removal
- Simple**
Heat pipe technology allows for greatly simplified design and eliminates numerous components needed in active systems

Nuclear Energy for New Markets & New Customers

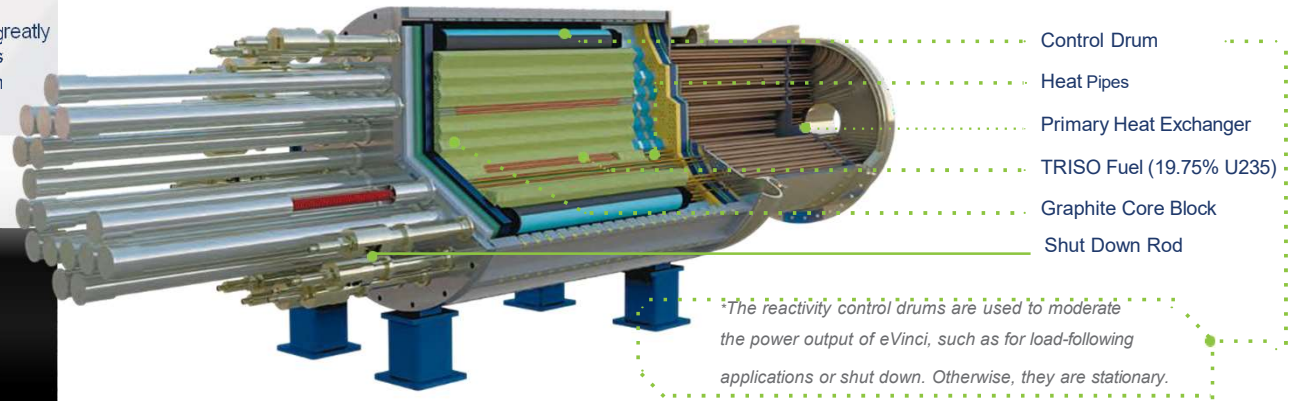
5 MW Electrical Power & 6-8 MW Thermal for Heating

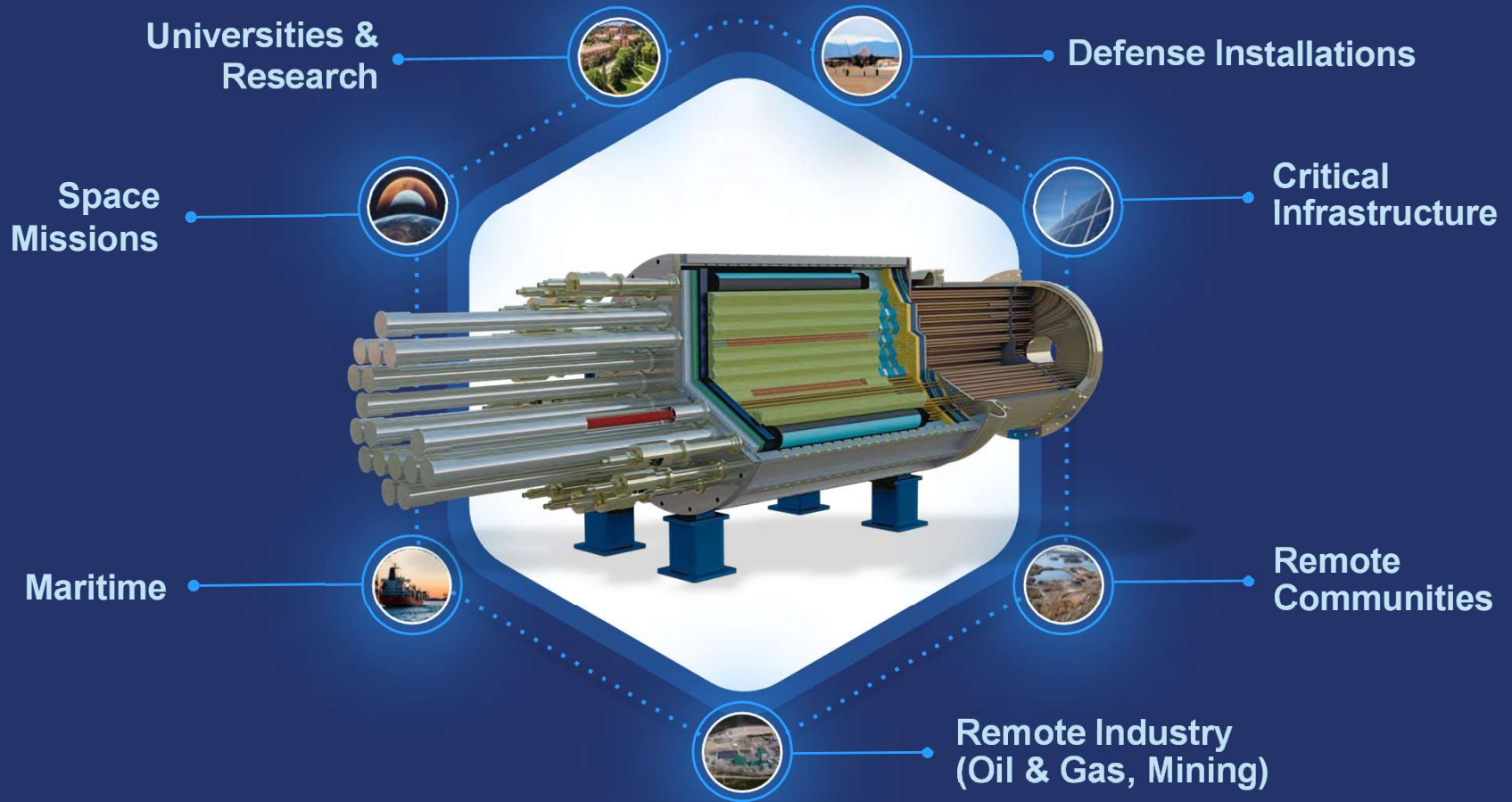
The eVinci Advantage

- Passively cooled, low pressure
- 8-to-12-year fuel cycle
- Facility-scalable in 5-MWe increments
- Black start capable
- Operate as grid-forming or grid-following with milli-second load follow response capability
- Transportable for reduced site work and simplified decommissioning



The encapsulation layers of TRISO fuel play a critical role as the primary functional containment barrier





eVinci[®] Microreactor Development Timeline



George Erikson invents the first heat pipe and conducts testing at Los Alamos National Lab



Technology transfer of heat pipes from Los Alamos National Labs to Westinghouse



Deliver Conceptual Design for 1MWe Mobile System for Project Pele



Electrical demonstration of a seven heat-pipe core assembly at operating temperature



Completed testing of key safety components Control Drums and Shut Down Rods



Full-Diameter Manufacturing Demonstration Unit, 32,000 lbs, 3.2 m Diameter



Transportation Demonstration on Rail & Barge



Recuperator Heat Exchanger for EDU2

1960

2018

2020

2021

2023

Aug. 2024

Aug. 2025

Sept 2025

2015

2018

2020

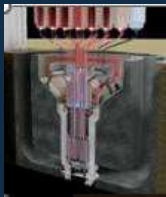
2023

March 2024

Jan 2025

Oct 2025

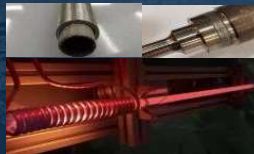
Westinghouse begins development of a heat pipe reactor concept



LANL and NASA complete the KRUSTY experiment for KiloPower reactor



Completed construction of the eVinci microreactor test facility & manufactured first sodium heat pipe



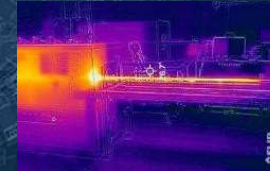
Completed fabrication of first 12 ft FeCrAl heat pipes



State of the art manufacturing and testing facility opened in Etna PA



12ft heat pipe production and testing begins. Heat Pipe test facilities start fabrication



Heat Pipe Testing for Brayton Cycle Demonstration

