

Westinghouse eVinci™ Microreactor

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Alliance, Fairbanks Industry Update
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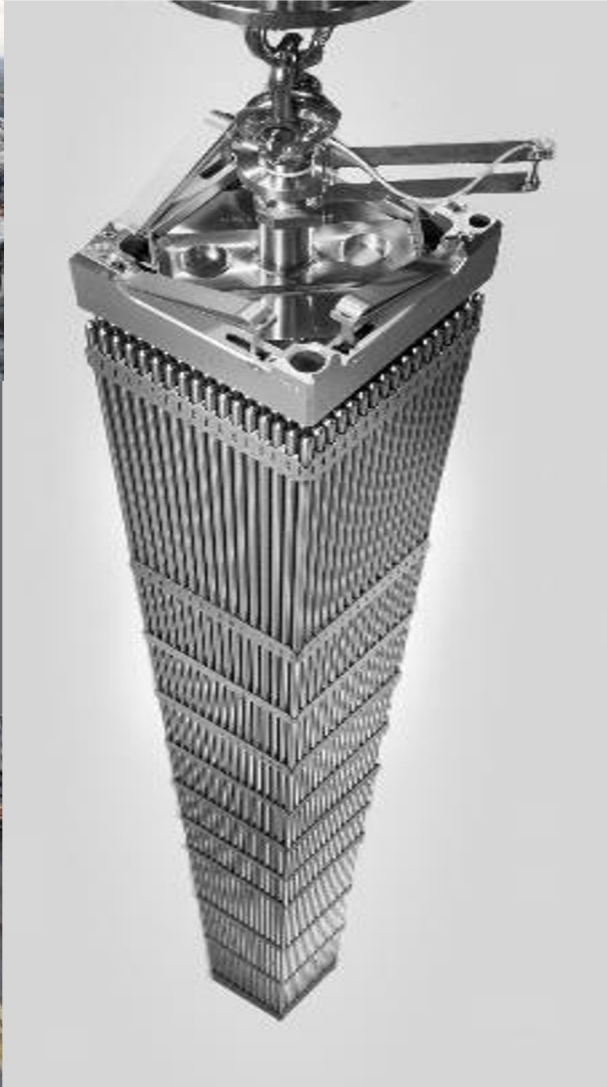
Westinghouse Electric Company



MORE THAN

134

YEARS OF INNOVATION



Westinghouse established

59

other companies

He received over

360

patents for his work

Approximately

14,000

Employees

Comprised of

5

Business Units

Locations in

19

Countries

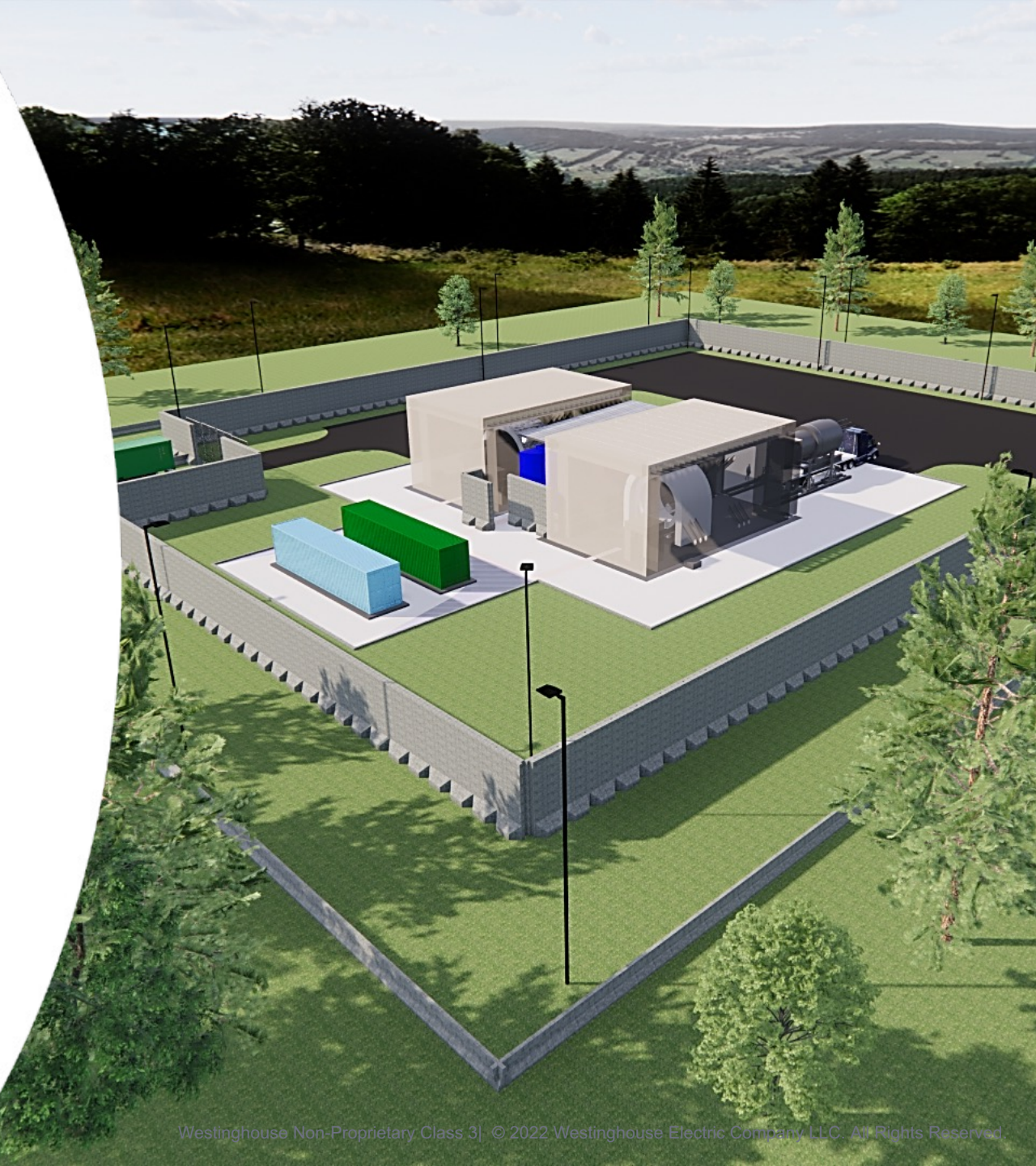
- Founded by George Westinghouse in 1886
- Responsible for some of the world's greatest advances in energy technology
- World's first commercial pressurized water reactor (PWR) in 1957 in Shippingport, Pennsylvania, U.S.

eVinci Microreactor Capability

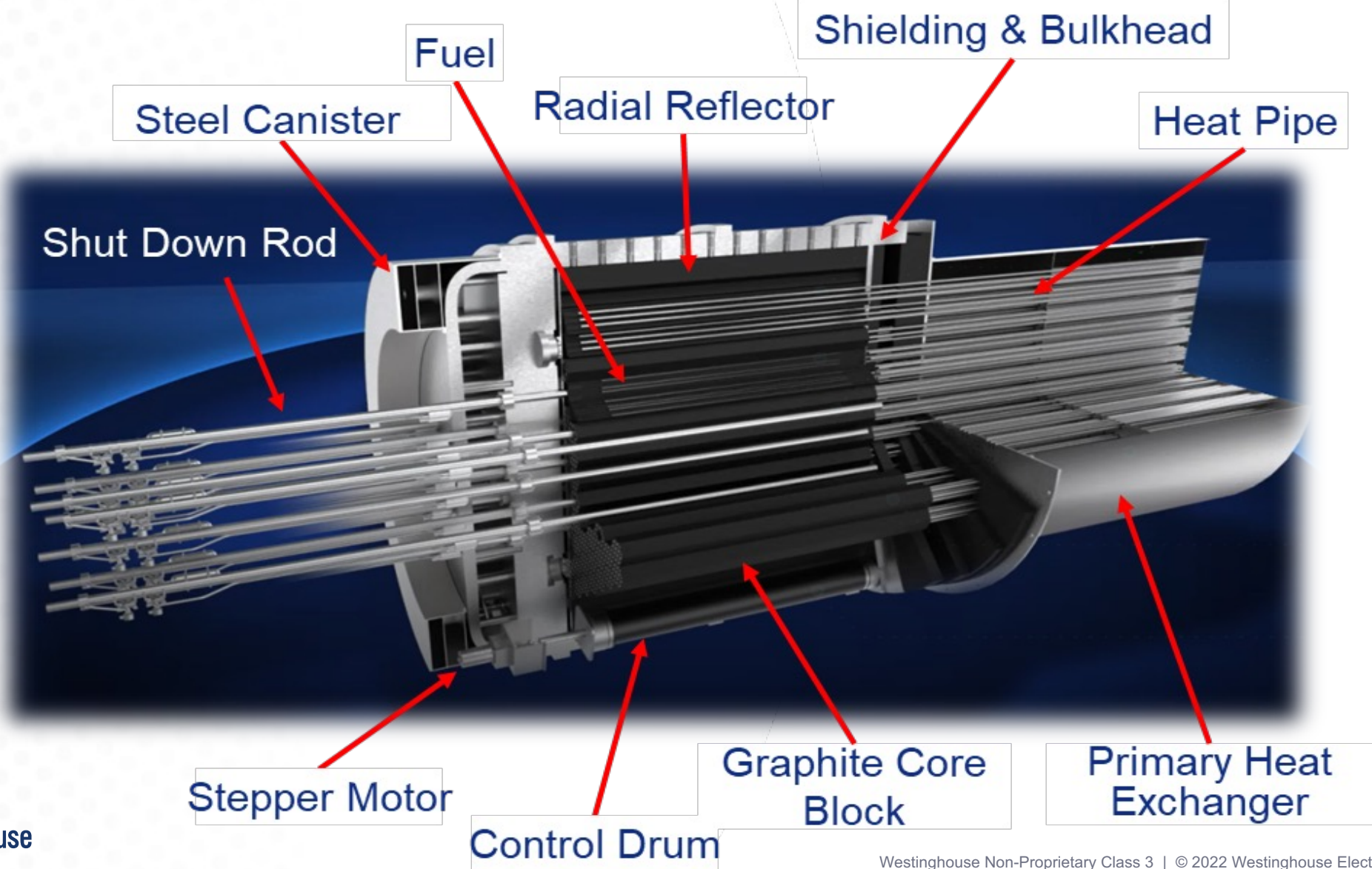
Nuclear battery designed for safe and reliable electricity and heat generation

Technical Capabilities

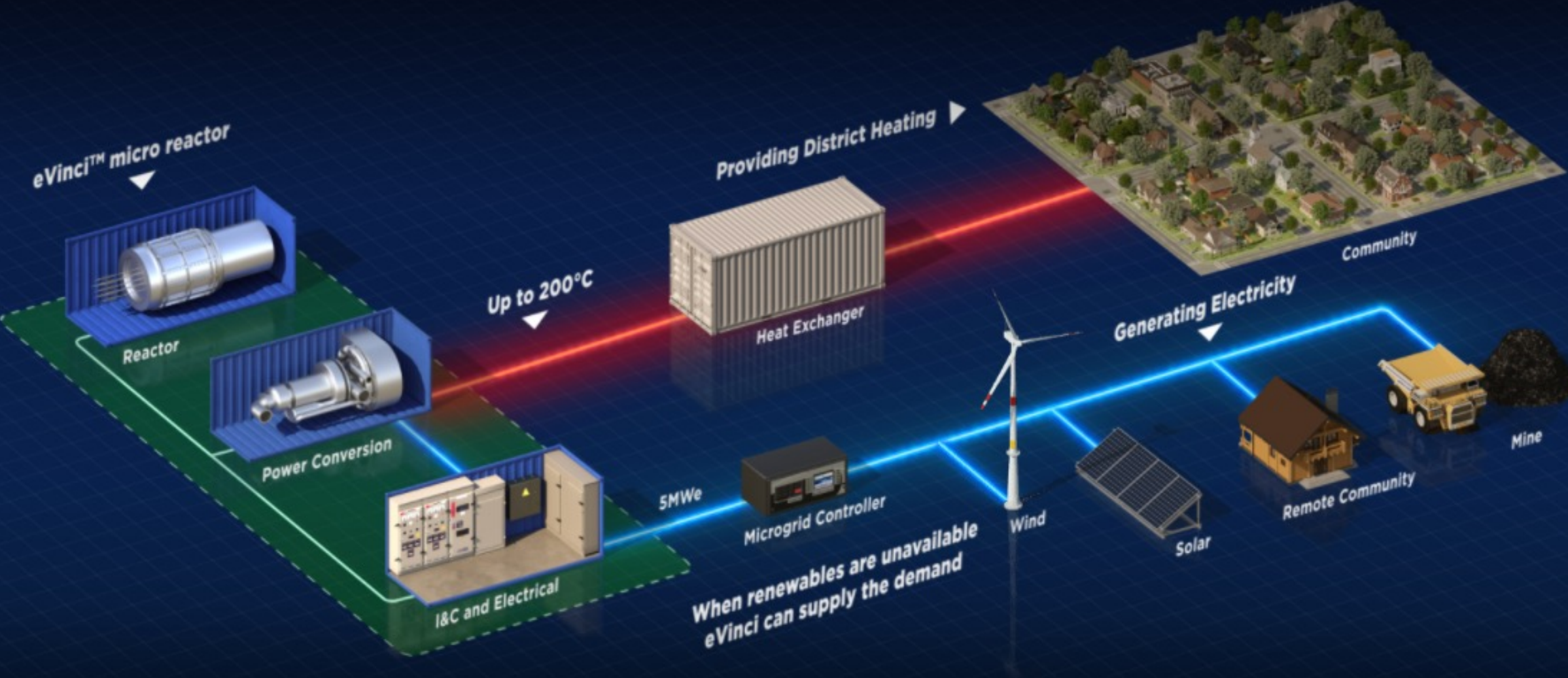
- 5 MWe + ~8MWth @ 200C cogeneration
- Minimum 8 year refueling cycle
- Transportable for ease of installation and elimination of spent fuel storage on site
- Cost-competitive plant lifecycle
- Minimal onsite personnel
- Mature technology, manufacturing, and regulatory readiness
- High speed load following capability



Minimal components for simplicity and high reliability



Combined heat and power capability



eVinci microreactor – energy and research applications



Decentralized electricity and heating

- Remote communities and industrial sites
- High resiliency requirements (military/data centers)
- District heating



Research

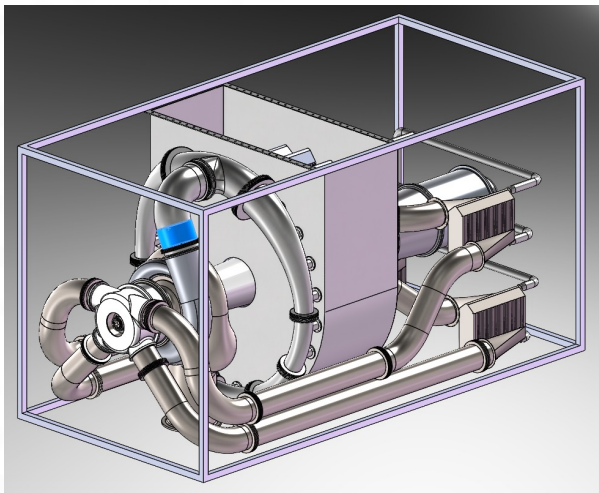
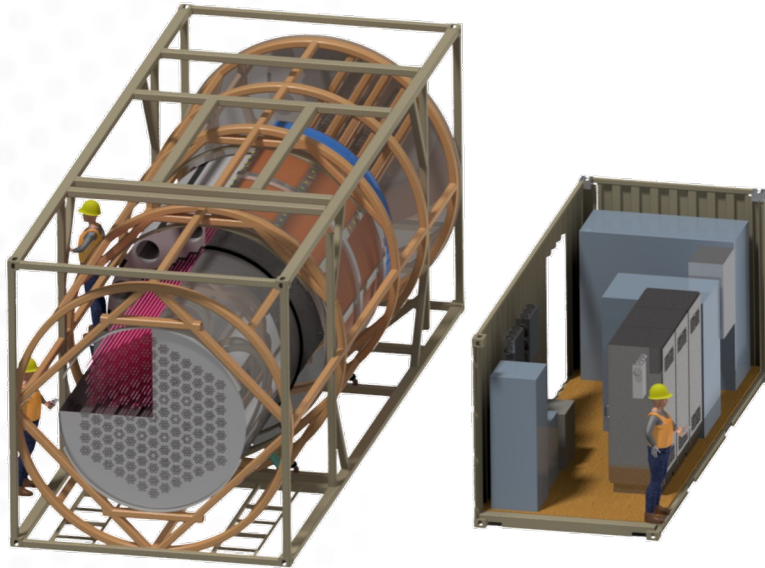
- Irradiation experiments and isotope production
- Thermal and electricity systems/process research
- Nuclear research including operational



Industrial

- High temperature process heat
- Offshore platforms and pipeline operations
- Hydrogen and synfuel production
- Marine

Transportable design revolutionizes delivery of nuclear power and solves key challenges



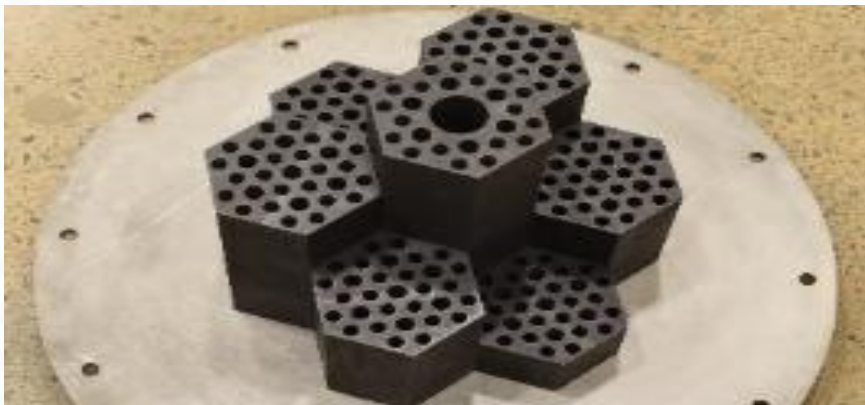
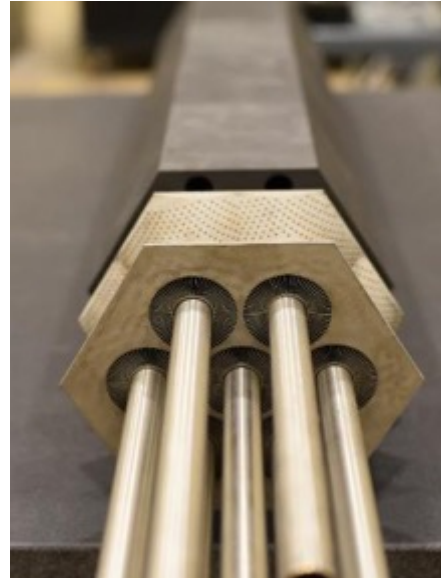
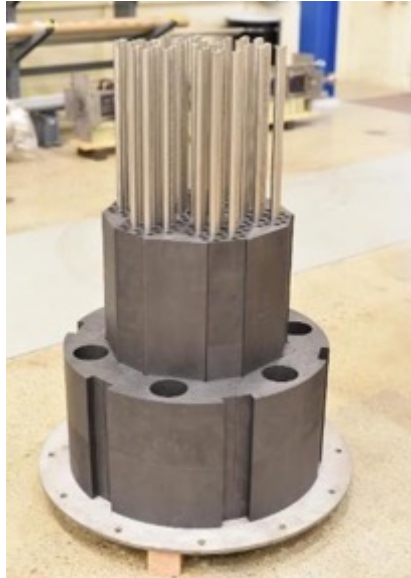
Minimizes construction allowing install to operation in less than 30 days

- Entire plant delivered in four truckload size containers (40' x 14' x 14')
 - Reactor container
 - Power conversion unit
 - Instrument and controls
 - Miscellaneous support equipment
- Site footprint of 1.5 acres – 60'x60' building
- Weights and sizes allow for deployment in remote areas (truck/rail/barge)
- Allows for rapid scaling to meet demand
- No spent fuel or waste storage on site
- Minimizes decommissioning effort

eVinci R&D Facility



Advanced development program focused on design, analysis, manufacturing and testing



Summary and Development Schedule

✓ Safety – “Walk away safe”

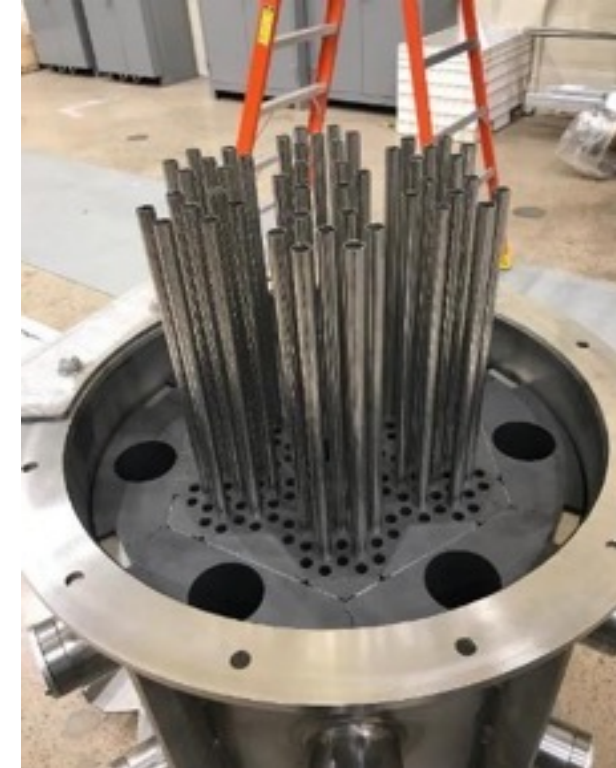
- ❑ Passive cooling
- ❑ Self contained fuel

✓ Credibility

- ❑ DOE and Canadian federal support, engaged with regulators
- ❑ Advanced design, testing and manufacturing program

✓ Cost and Benefits

- ❑ FOAK unit LCOE competitive with transported diesel
- ❑ Potential for delivered LCOE to achieve <\$0.20c/kwh
- ❑ Minimal construction cost and effort to return site to green field



2020

2021

2025

2027

Electrical Demonstration

Component Development / Nuclear
Demonstration

NRC Design Cert.
Commercial Unit

Thank You

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