Westinghouse eVinci™ Microreactor

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Alliance, Fairbanks Industry Update
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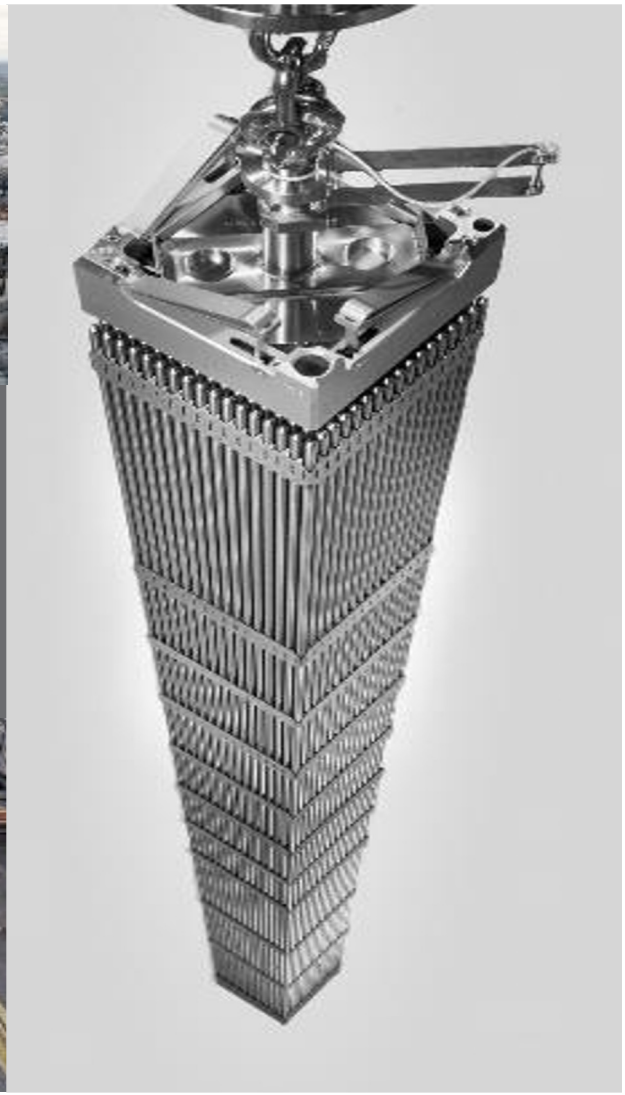
Westinghouse

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

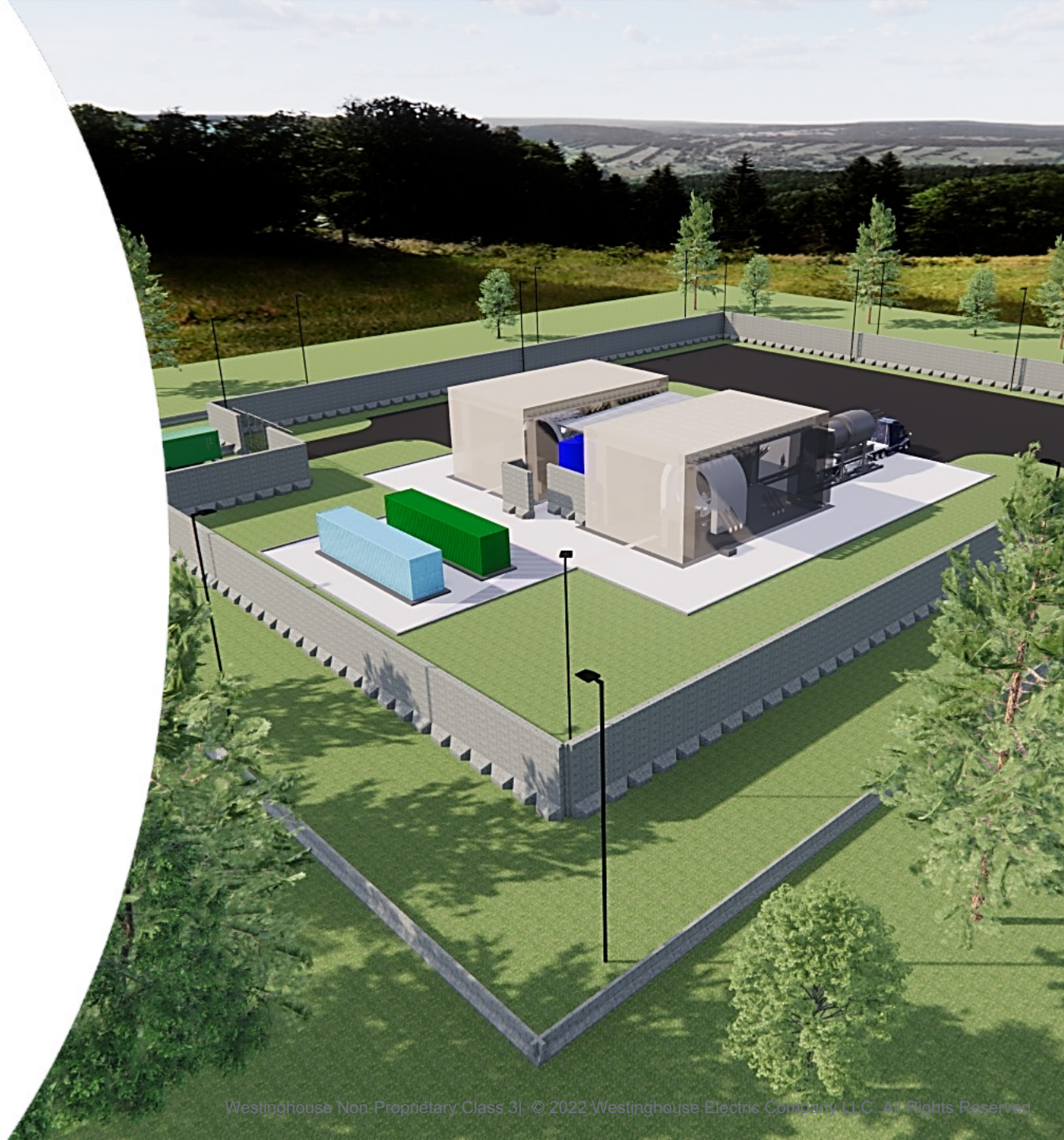
- Founded by George Westinghouse in 1886
- Responsible for some of the world's greatest advances in energy technology
- World's first commercial pressurized water reactor (PWR) in 1957 in Shippingport, Pennsylvania, U.S.

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



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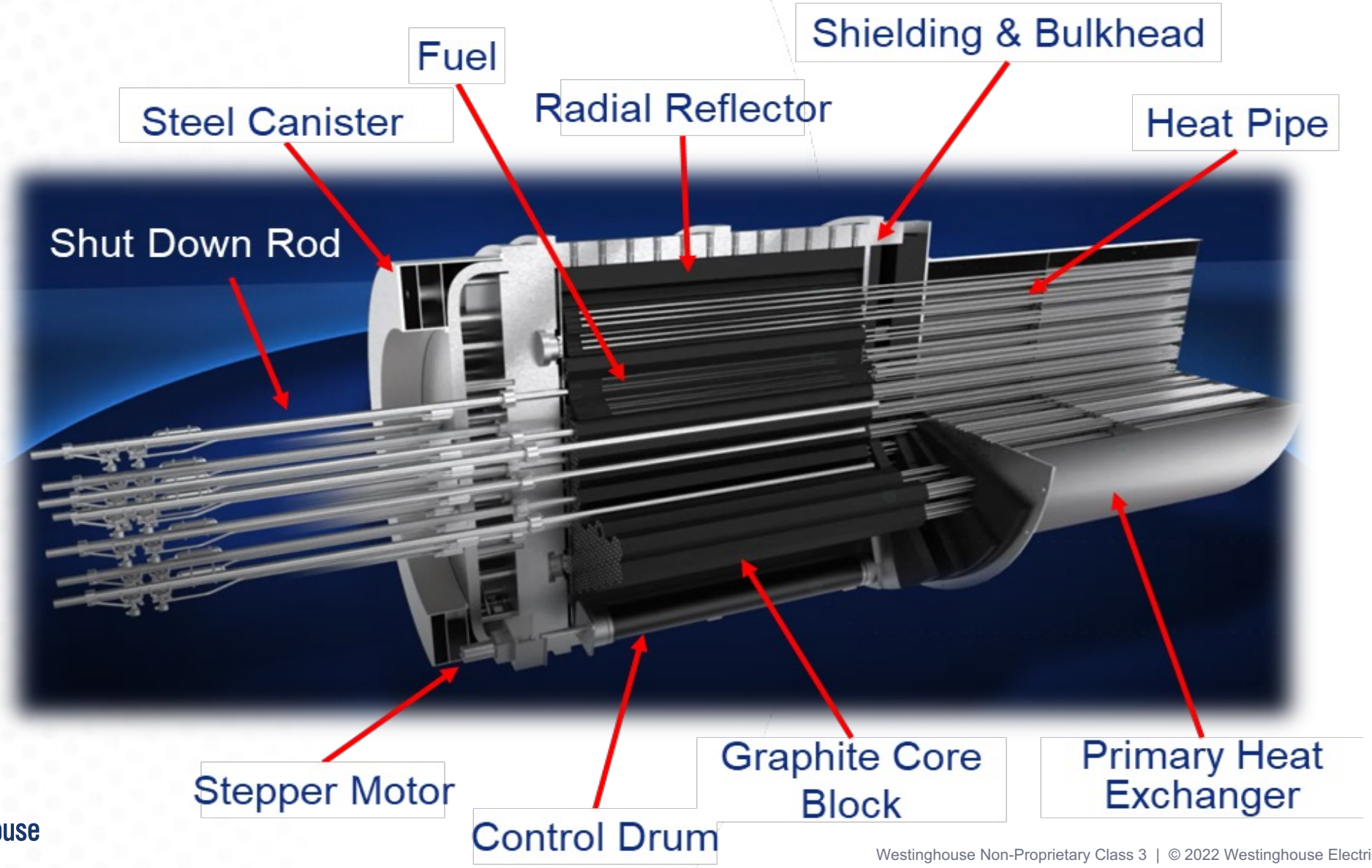
Minimal components for simplicity and high reliability



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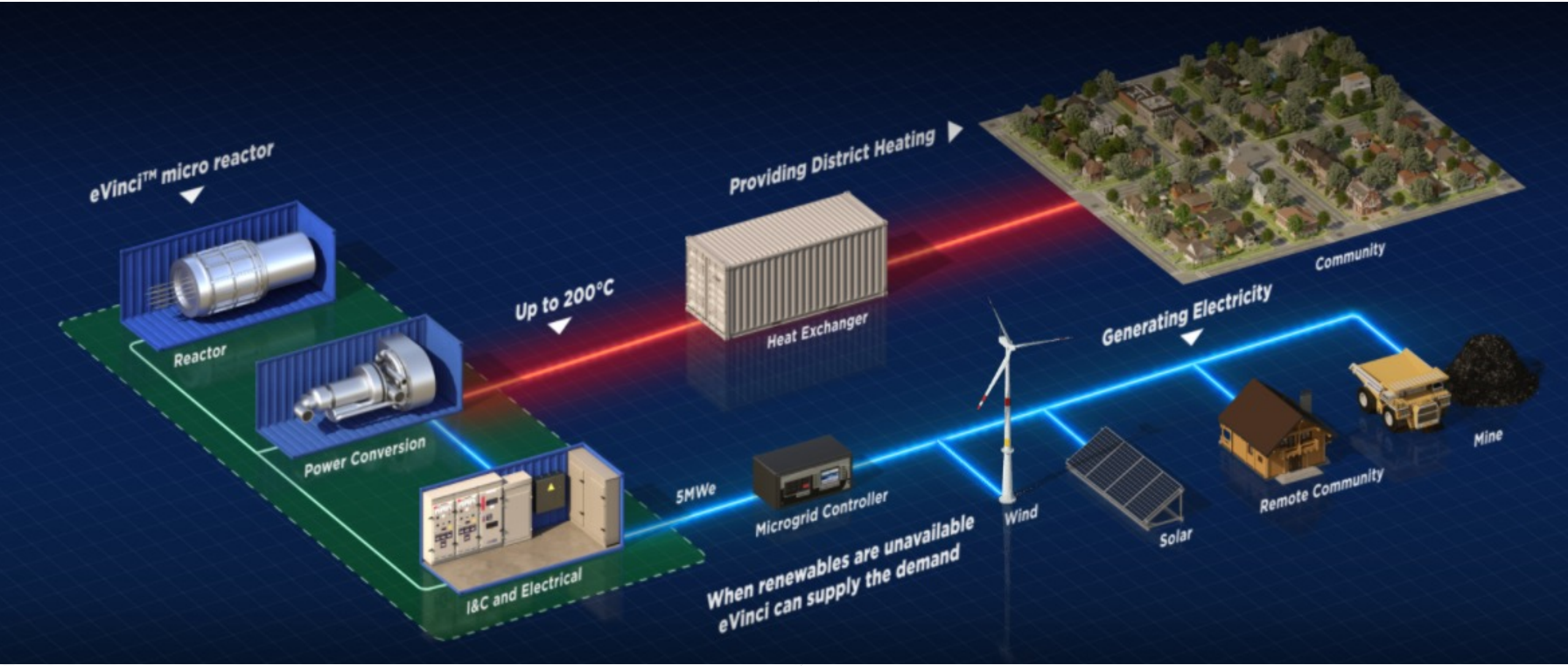
Combined heat and power capability



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

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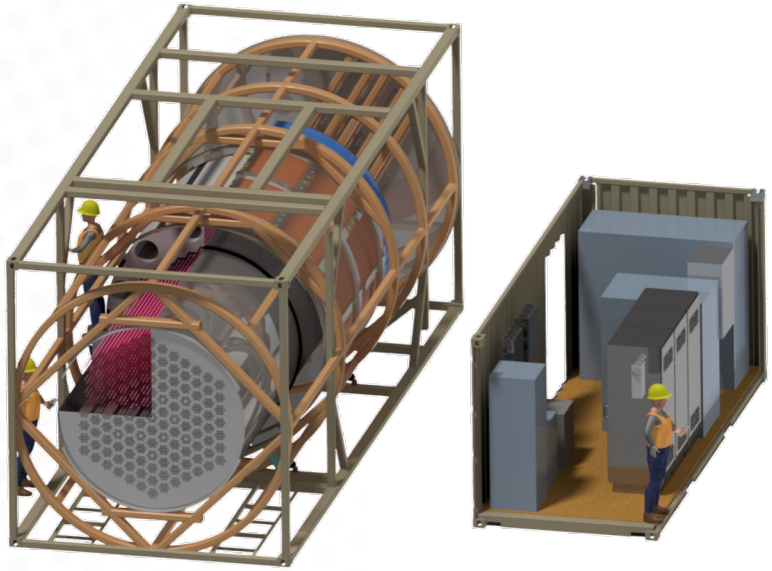
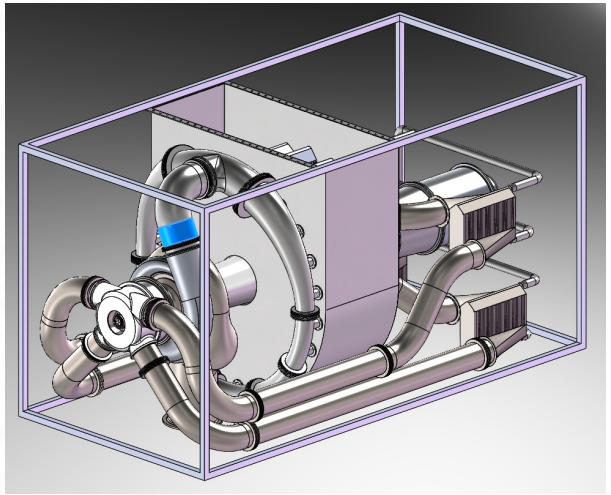
Transportable design revolutionizes delivery of nuclear power and solves key challenges





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

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eVinci R&D Facility

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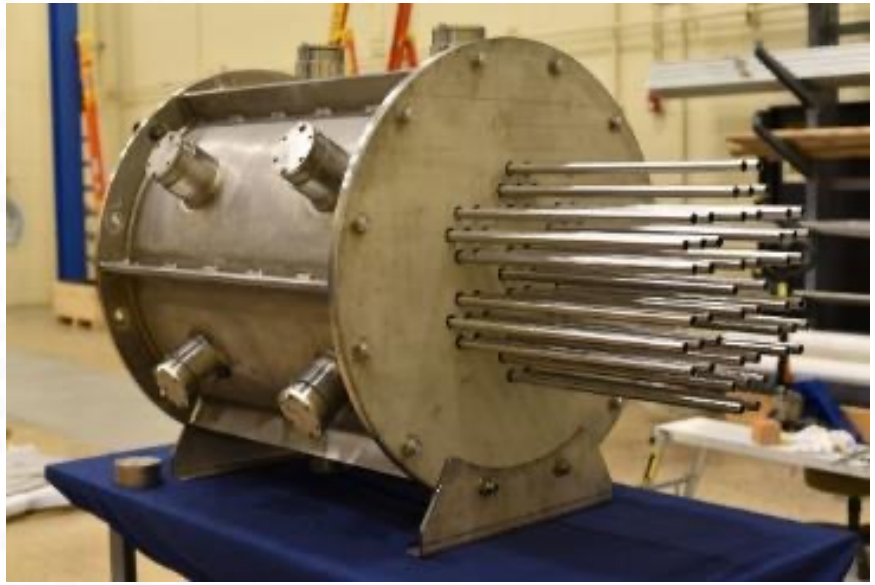
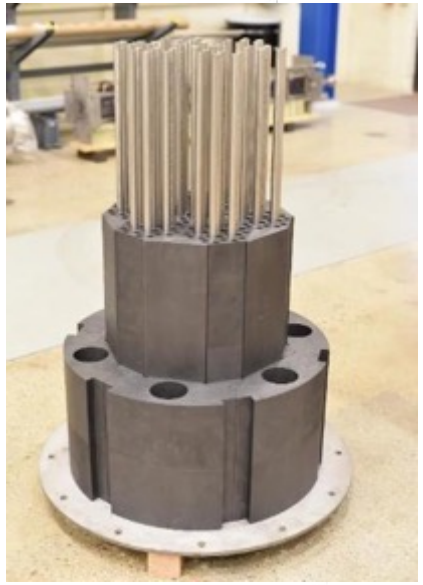
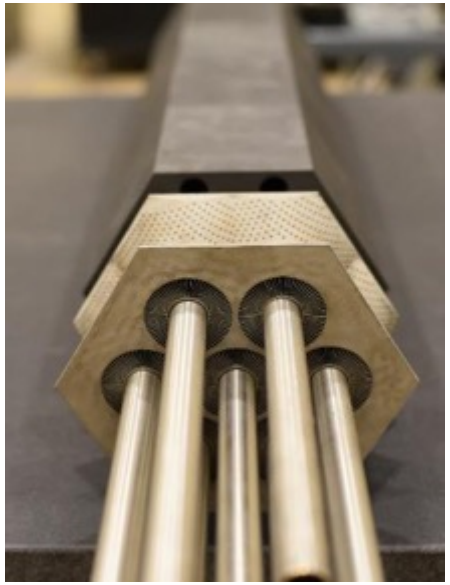
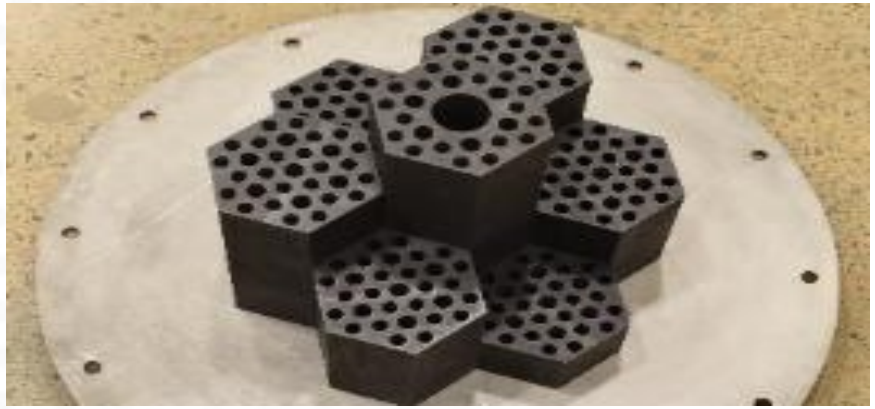
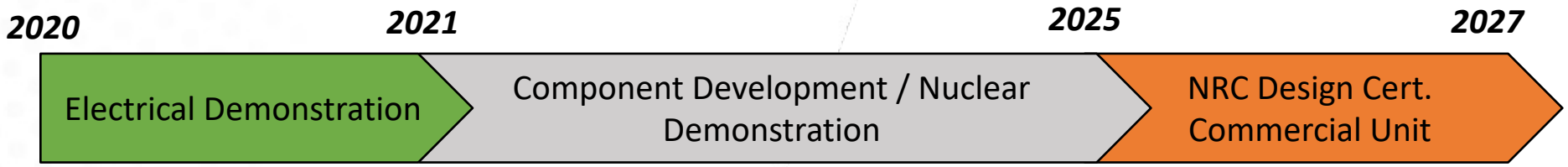
Advanced development program focused on design, analysis, manufacturing and testing



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



Thank You

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