eVinci™ micro reactor

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eVinci Micro Reactor

Market Entry:
Remote Industrial Applications

Remote Industrial Needs:
• Eliminate diesel fuel logistics
• Improve environmental management
• Avoid carbon taxes
• Achieve GHG emission goals

Attributes
• Transportable for flexible deployment
• Cost-competitive plant lifecycle
• 4.5 MWe net power output
• Minimum three-year refueling cycle and elimination of need for onsite storage of spent fuel or radioactive waste
• Minimal onsite operations & maintenance personnel
• Mature technology, manufacturing, and regulatory readiness
• Capability to utilize combined heat and power
• Simplicity & reliability for dynamic load operation
eVinci Technology
eVinci micro reactor Heat Pipe technology

Key Advantages

- Passive primary coolant system with built in redundancy
  - No forced flow like HTGR and pumped liquid metal reactors

- Heat transfer via liquid metal phase change
  - Minimize thermal stress with superior temperature uniformity
  - Minimize fuel temperature following a postulated accident

- Keeps contaminants associated with open flow systems out of the core

- Enables open-air Brayton cycle for secondary power conversion
eVinci Markets

- Remote mining operations
- Industrial process heat
- Remote communities
- Extreme resilience
- Critical Infrastructure Installations
- District heating
- Disaster relief

Timeline:
- 2020: Electrical Demonstration
- 2021: Nuclear Demonstration / Prototype
- 2025: Commercial Units
eVinci addresses a significant number of global energy needs.