

Using New Nuclear to Help Canada Reach Net Zero by 2050

Key Environmental Attributes

- Completely **emissions free, reliable** energy source in all weather conditions and temperatures
- Eliminates risk from costly or seasonal diesel fuel supply
- Requires **no water** for cooling or operation
- Above ground installation requires **minimum ground** disruption with around 2 acre footprint
- Spent fuel returned to manufacturer or DGR long-term storage and **never stored on site**
- Seamless pairing with wind, solar and hydro
- Each eVinci microreactor will **reduce up to 55,000 tonnes of CO₂/year**
- Transportability in shipping containers allows for easy and quick deployment, scalability and removal

Enabling Sustainable Economic Development and Job Creation:

- Making clean and affordable heat and power available for every community and industry
- Reliable energy ensures community wellbeing, safety and opportunity for electrification
- Heat by-product may be captured for district energy, water purification, greenhouses and many other applications
- High grade process heat can be used for industrial, resource-based applications and H₂ generation
- Capable of supporting research and academic advancement

eVinci Deployment Applications



Industrial Heat & Power



Thermal EOR (SAGD, Steam)



Hydrogen Production



Critical Infrastructure



Remote Communities



Research Application



eVinci™ Microreactor

Safe, Reliable Technology

The Westinghouse Solution

The eVinci microreactor's innovative design combines new technologies with 60+ years of commercial nuclear design and engineering and creates a cost competitive and resilient source of power with superior reliability and minimal maintenance. Its small size allows for transportability and rapid, on-site deployment in contrast to plants requiring large amounts of construction. eVinci can produce 5MWe with a 13MWth core design. The reactor core is designed to run for **eight or more full power years before refueling**.

Heat Pipe Innovation

The key benefits of the eVinci microreactor are attributed to its advanced heat pipe technology. The heat pipes enable high-temperature, passive-heat transfer, eliminating the complexity of a forced flow reactor coolant system.

The heat pipes passively transfer heat with high efficiency, eliminating the need for high pressure operation. Few moving parts and low pressures make the eVinci microreactor a highly reliable system requiring very little maintenance.

Westinghouse has decades of nuclear instrumentation and control experience that supports safe and automatic eVinci microreactor operation while including remote monitoring.

eVinci Microreactor Site Layout



www.westinghousenuclear.com/canada/evinci-micro-reactor