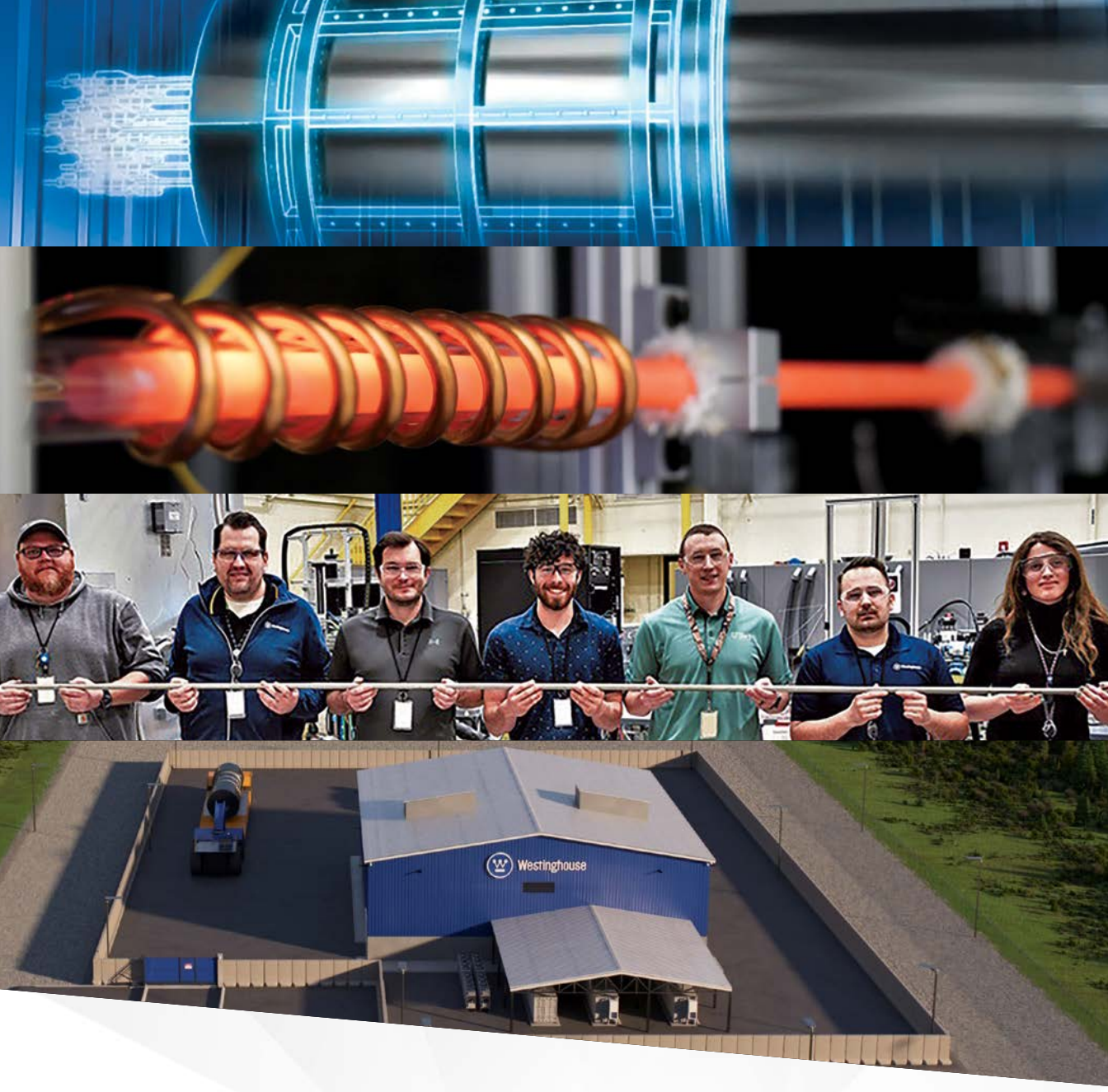



# eVinci™ Microreactor

## The Next Generation Of Nuclear Energy Technology Is Here.

Westinghouse

# Electricity

## When & Where You Need It

The world needs energy sources that are Innovative, Transportable, Safe and Reliable. What would such an energy resource look like? Where could it be located? And what other benefits could it provide besides electricity?

The eVinci™ microreactor from Westinghouse answers those questions.

The eVinci microreactor builds on an **INNOVATIVE** technology developed decades ago: heat pipes. Heat pipes allow for greatly simplified systems that can not only shrink components needed for a standard nuclear reactor, but eliminate them altogether. All while providing the highest levels of safety and efficiency.

By simplifying the operational systems of the eVinci microreactor, we have made it **TRANSPORTABLE** so the electricity can be delivered where you need it: off-grid communities, mining operations, strategic military outposts or oil and gas operations. The applications for eVinci are only limited by imagination.

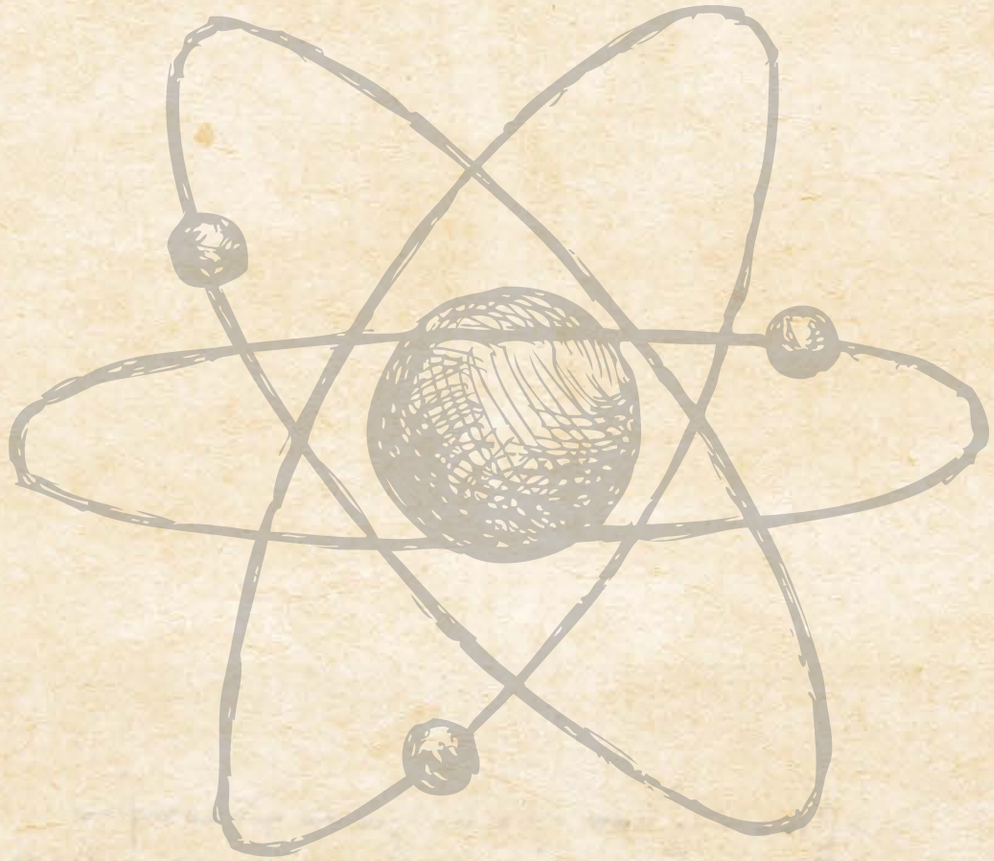
And because the eVinci microreactor is incredibly **SAFE**, locating one or more at a university or even in a city center is no longer unthinkable. The eVinci microreactor is a fully-passive, heat-transfered, solid-state fuel technology that minimizes risks sometimes associated with traditional nuclear power generation.

But the heart of our eVinci microreactor technology is its **RELIABLE** nature. Once delivered and installed, the eVinci can operate in the harshest conditions for 8 years or more at full power without refueling.

Designed and engineered by a dedicated team of experienced nuclear energy professionals, the eVinci microreactor from Westinghouse delivers these benefits while protecting the environment through its generation of carbon-free electricity.

**We invite you to learn more about this technology.**
**We think it's pretty special.**

eVinci.



*Simplicity is the ultimate sophistication.*

*– Leonardo da Vinci*

# Heat Pipes:
## An Innovative, Elegant Game Changer

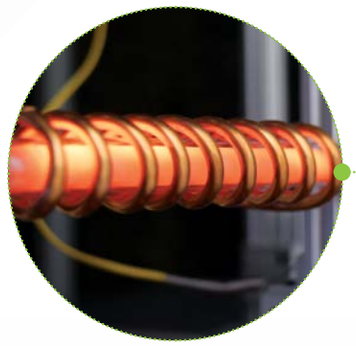
Heat pipe technology shouldn't be new to you. Chances are you've carried "heat pipes" around with you for years as heat-spread devices in your mobile phone or other electronics.

Heat pipe technology has been applied for the past 50 to 60 years with millions of operating hours in aerospace and other industries in high-temperature applications, which rely on a passive and simplified component design. Westinghouse engineers have taken that concept and applied it to nuclear energy development. Our team is even shrinking the technology for possible space deployment.

**How do they work?**
The heat pipes enable high-temperature, passive-heat transfer, eliminating the complexity of a forced-flow reactor coolant system, so no pumps or valves are needed. The heat pipes passively transfer heat with high efficiency, eliminating the need for high-pressure operation.

Almost no moving parts and low pressures make the eVinci reactor a highly reliable system requiring very little maintenance.

*In the end,* ***that's the game-changer.***



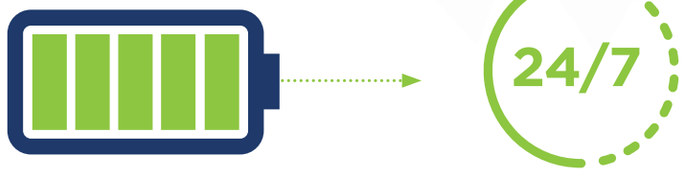
# eVinci Microreactor:
## The Real Nuclear Battery

Batteries — as we all know them — are pretty simple devices, requiring no moving parts to discharge their energy, powering a multitude of everyday devices for various lengths of time.

**What if we applied that concept to nuclear energy?**
That's what Westinghouse has achieved with the eVinci microreactor: a nuclear battery.

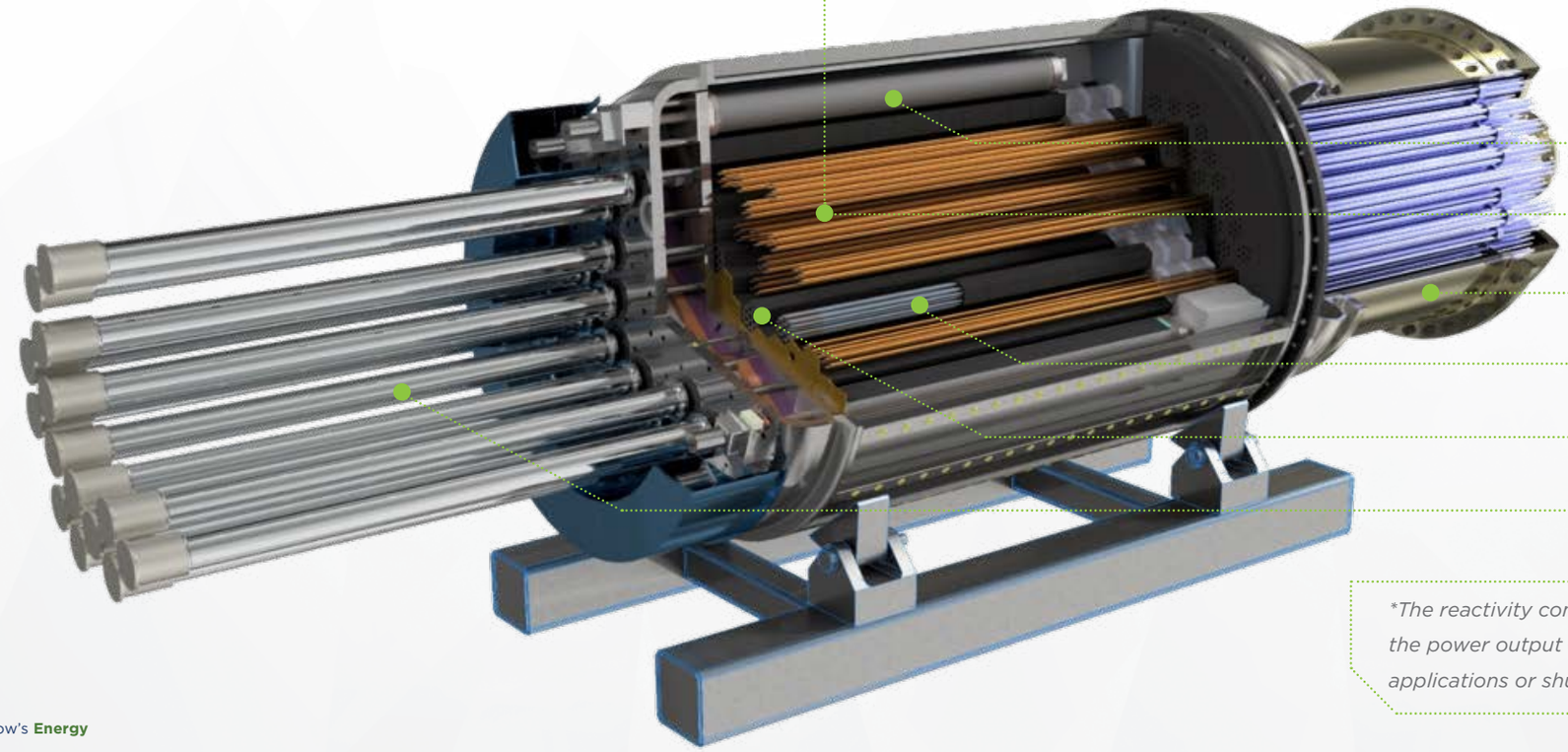
Like a battery, the eVinci has a simple design with no moving parts or pumps, save for the occasional use of its reactivity control drums.* Like a battery, the eVinci can supply its power 24/7/365. But unlike most batteries we know, the eVinci can do this without recharging (refueling) for eight years or more.

*Oh, yeah.* ***The game has definitely changed.***




**8-Year + Charge**

## eVinci Microreactor




**The reactivity control drums are used to moderate the power output of eVinci, such as for load-following applications or shut down. Otherwise, they are stationary.*

# Where in the World Could You **Find eVinci?**

**The answer:** pretty much anywhere electricity is needed.

The eVinci microreactor is fully assembled in a factory prior to shipment. Because of its transportability, eVinci can be delivered where clean, reliable power is required, such as remote areas disconnected from the main grid.

Military installations. Mining operations. Off-grid or edge-of-grid communities. In these places, diesel generators often carry the load for producing electricity. But diesel can be difficult to continually transport to a remote site. Plus, burning diesel produces carbon emissions. One eVinci microreactor could eliminate the need for thousands of diesel fuel shipments.

***eVinci is the solution.***

## eVinci at Home on Campus

As major research universities look to decarbonize energy mixes and provide research opportunities for their students, eVinci has the power to do both.

eVinci is able to seamlessly begin providing carbon-free electricity and district heating to help universities reduce their carbon footprints.

eVinci's mature, yet cutting-edge technology can help train the next generation of scientists and engineers in critical applications to benefit national security, nuclear technology and scientific innovation.

*eVinci. Clean, reliable energy.* ***Delivered.***

## Licensing and Regulatory Progress

The eVinci microreactor team is advancing this extraordinary technology through regulatory agencies in the U.S. and Canada. Meeting these commitments is vital to timely approvals and commercial deployment in the years ahead.

## eVinci Key Attributes

- 5 MWe and ~6MWth generation capacity
- Fully factory assembled
- Robust safety built-in
- No water required
- Above-ground construction
- 8+ years without refueling
- No long-term storage of spent fuel on site
- Minimal onsite personnel required for operation/maintenance/security
- Small footprint
- Rail-ready/barge-ready delivery
- Allows for rapid deployment and scalability
- Eliminates risk from costly or seasonal diesel fuel supply
- Enables sustainable economic development for remote communities
- Provides process heat for district heating
- Emissions free
- Minimal maintenance
- Can grid form or grid follow
- Reliable in all weather conditions and temperatures
- Seamless pairing with wind, solar and hydro

**Scan to take a virtual tour**

Visit **www.westinghousenuclear.com** to learn more about eVinci.

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