



DEEP FISSION

The Fastest Path to Scale
Nuclear Power

November 5, 2025

Powering Humanity from a
Mile Underground



DeepFission.com

Legal Disclaimer— Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of the U.S. federal securities laws, including, among other things, statements regarding Deep Fission, Inc.'s development plans, anticipated project timelines, cost objectives, commercialization strategy, partnerships, and other future matters.

Forward-looking statements are based on current expectations and assumptions and involve risks and uncertainties that could cause actual results to differ materially from those expressed or implied. Important factors that could cause such differences are described under “Risk Factors” and “Special Note Regarding Forward-Looking Statements” in Deep Fission’s registration statement on Form S-1 (as amended from time to time) and in other filings Deep Fission makes with the U.S. Securities and Exchange Commission (“SEC”).

Deep Fission undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, except as required by law.

Clean energy for the AI era.

Deep Fission is leveraging the Earth's own physics to redefine the **time and cost** of nuclear power deployment.

CEO Overview

[EnerCom Denver Conference](#)

Core Idea and Origin Story

[The Economist](#)

Pilot Reactor Development

[Fox Business Network](#)

3 Initial Planned Sites

[World Nuclear News](#)

12.5 GW in Pipeline

[Bloomberg](#)

\$30M Financing, Go-Public Transaction

[Bloomberg](#) [Power Technology](#) [Press Release](#)

Integrating three proven advancements.

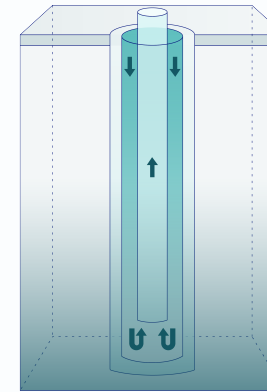
Deep Fission combines standard pressurized water reactor (PWR) technology with deep borehole drilling and geothermal methods to solve for the containment, pressure systems, and emergency core cooling infrastructure that account for ~75–90% of nuclear's cost.

Pressurized Water Reactor



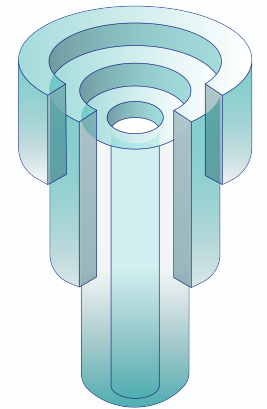
Hydrostatic pressure from one-mile-deep column of water provides 160 atm of invulnerable pressure safety, naturally. PWR uses readily available low-enriched uranium (LEU) fuel.

Geothermal Methodology



Novel deployment approach applies proven geothermal methodology for energy transfer from the natural heat sink properties of the surrounding geology.

Deep Borehole Drilling



Evolved borehole design is 100% drillable using standard oil & gas infrastructure for containment a mile underground.

Regulatory Advantage: Deep Fission selected as one of 10 companies for the U.S. Department of Energy Nuclear Reactor Pilot Program—

A fast-track initiative to design,
build, and operate advanced test
reactors, with the ambitious goal
of reaching criticality by
July 4, 2026.

August 12, 2025

WASHINGTON—The U.S. Department of Energy (DOE) today officially kicked off President Trump’s Nuclear Reactor Pilot Program, announcing DOE will initially work with 11 advanced reactor projects to move their technologies towards deployment. DOE will work with industry on these 11 projects, with the goal to construct, operate, and achieve criticality of at least three test reactors using the DOE authorization process by July 4, 2026. Today’s initial selections represent an important step toward streamlining nuclear reactor testing and unleashes a new pathway toward fast-tracking commercial licensing activities. “President Trump’s Reactor Pilot Program is a call to action,” said Deputy Secretary of Energy

James P. Danly. “These companies aim to all safely achieve criticality by Independence Day, and DOE will do everything we can to support their efforts.”

Seeking DOE authorization provided under the Atomic Energy Act will help today’s selected companies— Aalo Atomics Inc., Antares Nuclear Inc., Atomic Alchemy Inc., **Deep Fission Inc.**, Last Energy Inc., Oklo Inc., Natura Resources LLC, Radiant Industries Inc., Terrestrial Energy Inc., and Valar Atomics Inc.— unlock private funding and provide a fast-tracked approach to future commercial licensing activities.*



*U.S. Department of Energy. (2025, August 12). Department of Energy announces initial selections for new reactor pilot program.

Meet the new face of nuclear.

Culture of collective drive, ecosystems over empires, and AI-native agility.



Elizabeth Muller

CEO and Co-Founder
Co-Founder, Board Chair & Former CEO, Deep Isolation (nuclear waste disposal)
Co-Founder, Berkeley Earth



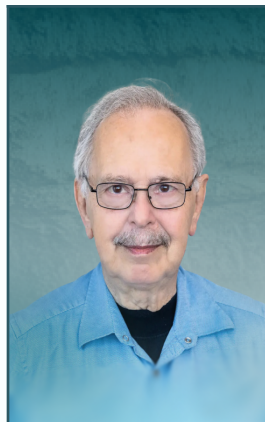
Michael Brasel

COO
30 years across nuclear, fossil, renewable energy



Rani Franovich

VP Regulatory Affairs
30 years at NRC



Richard Muller PhD

CTO and Co-Founder
Co-Founder, Deep Isolation
MacArthur "Genius"
80+ nuclear patents
Professor Emeritus, UC Berkeley



Mark Pérès

VP Engineering
40+ years in Nuclear Engineering



Kwadwo Adutwum

Nuclear Reactor Core Design Engineer
Holtec, Dominion, XCel



Bryan Black

VP Business Development
15 years in nuclear and power sectors



Anya Scuderi

Strategic Finance
10 years experience in energy capital markets



Mark Schmitz

CFO
40+ years global finance leadership, former CFO, Itron, Goodyear, PlugPower



Chloe Frader

VP of Strategic Affairs
15 years in startups, political and finance sectors



Jason Pottorf

Principal I&C Safety Analysis Engineer
25 years in commercial nuclear energy safety

Expert Advisory Board



John Mather

**Nobel Laureate
in Physics**
Senior Astrophysicist
at NASA's Goddard
Space Flight Center



Steve Koonin

**Special Government
Employee, DOE**
Former Chief
Scientists
at BP and Former
Undersecretary of
Energy



Bret Johnsen

CFO of SpaceX
Former CFO of
Mindspeed
Technologies



Jo Riley

**Co-Founder and
CEO of Censia**
Entrepreneur focused
on AI models for
talent sourcing



Steve Chu

Nobel Laureate
Former Secretary
of Energy



Mark Peters

**CEO of Mitre
Corporation**
Former Head of
Idaho National Labs



**Patrick
Huston**

Brig. Gen. (Ret.)
FBI Scientific Working
Group on AI



**Kristin
Sverchek**

**Former President
of Lyft**



**Allison
Salisbury**

Entrepreneur
Building social impact
companies



Demand for energy could quickly create a national security and infrastructure crisis.

Demand is quickly surpassing supply due to the **surge in capital expenditure from AI-driven data centers and hyperscalers**. We are at a point where shortfalls in energy supply are becoming critical. Fast deployments of nuclear power with Deep Fission technology may provide a compelling low-cost solution and rapid build time.

By 2033, the U.S. energy transition market is projected to reach **\$1.18 trillion***, and that number is likely to rise as demand continues to outpace supply. While the U.S. has the largest fleet of nuclear power plants, developing new reactors has proved extraordinarily difficult. **Only three new reactors have come online since 1996.****

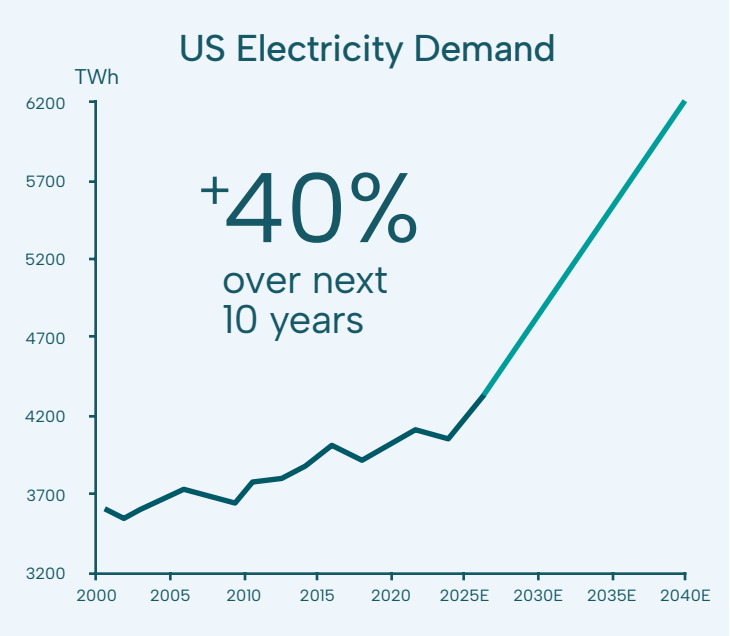
*U.S. Energy Transition Market Size, Share & Trends Analysis Report, 2025 – 2033 (Grand View Research)

**New York Times, after May 2025 Executive Orders announcement



36
TWh

Increase in
Global Power
Consumption



Source: Blackstone

Only
3

new
reactors
since
1996

\$1.18 Trillion
2033 US Energy
Market



Credibility, cost & complexity are barriers— We are in a **race against time**.

The DOE has declared a nuclear fast-track with a target to achieve criticality of at least three test reactors by July 4, 2026. Deep Fission believes it has a plan and path to be one of those three.

Traditional/Surface Level Reactors

Credible, safe solutions take decades to build, maximize pushback, and often amplify costs to the point of cancellation.

Next-Gen SMRs

Small modular reactors are hindered by their ability to produce cost-effective electricity in the near term.

Novel Reactor Startups

New solutions pose high risk with unproven upside—iterative, untested tech as opposed to wholesale breakthrough.

Deep Fission is designed for rapid deployment, built with standard technology, and engineered for economic transformation.



Competitive Landscape: At-A-Glance (1GW)

<u>Feature/Metric (1GW)</u>	Traditional Nuclear Reactors	Advanced Reactors	 DEEP FISSION
Build Time	6–10 years	3–4 years	~6 months
Construction Costs	\$15B+ (1GW)	\$8–9B (1GW)	\$2.5–3B (1GW)
Fuel Type	LEU (readily available)	HALEU (hard to source)	LEU
Regulatory Path	Long, complex	Medium (still new tech)	DOE fast-track friendly
Modularity/ Scalability	Large, one-off projects	Modular, but still costly to replicate	100 reactors on one site can produce 1.5GWe
Levelized Cost of Energy (LCOE)	\$180+ per MWh	N/A yet, likely > \$100	\$50–70 per MWh

Deep Fission's Borehole Reactor Design may be the biggest scientific breakthrough in nuclear power of the last 50+ years.

Deep PWR

Standard Fuel Assemblies
with readily available LEU
fuel, exploring 2x2 and 3x3
configurations

+ Passive Safety and
Containment

Deep Geothermal

Steam Generator
leveraging
conventional
geothermal
technology

+ Natural
Emergency Core
Cooling

Deep Geo Vault

Standard Borehole
drilled utilizing
readily available
technology

+ No Need for Expensive
Mega-Structures

Our Deep Borehole Reactor breakthrough improves on major variables of PWR and SMR complexity and cost.

New Pressurized Water Reactors are still not cost-effective

Reactor Pressure Vessel

\$\$\$\$\$

Emergency Core Cooling Systems

\$\$\$

Reactor Containment Building

\$\$\$\$\$

Nuclear Construction and Quality Assurance

\$\$\$\$

Supply Cost for Standard Fuel Assembly*

\$\$

Advanced/Small Modular Reactors

HALEU Fuel Supply

\$\$/Not ready for
commercial
availability

Nuclear Construction and Quality Assurance

\$\$\$

Deep Fission

compelling economics across the board

\$

\$

\$

\$

\$\$

N/A

\$

estimated 70–80% cost reduction
vs. competitor priced projects



Not just viable— Profitable from day one.

Target LCOE of \$50–70/MWh enables nuclear project economics to be cost competitive with other traditional and renewable forms of energy.

Deep Fission Expected Contracted Sales Price (\$/MWh)

\$80-130

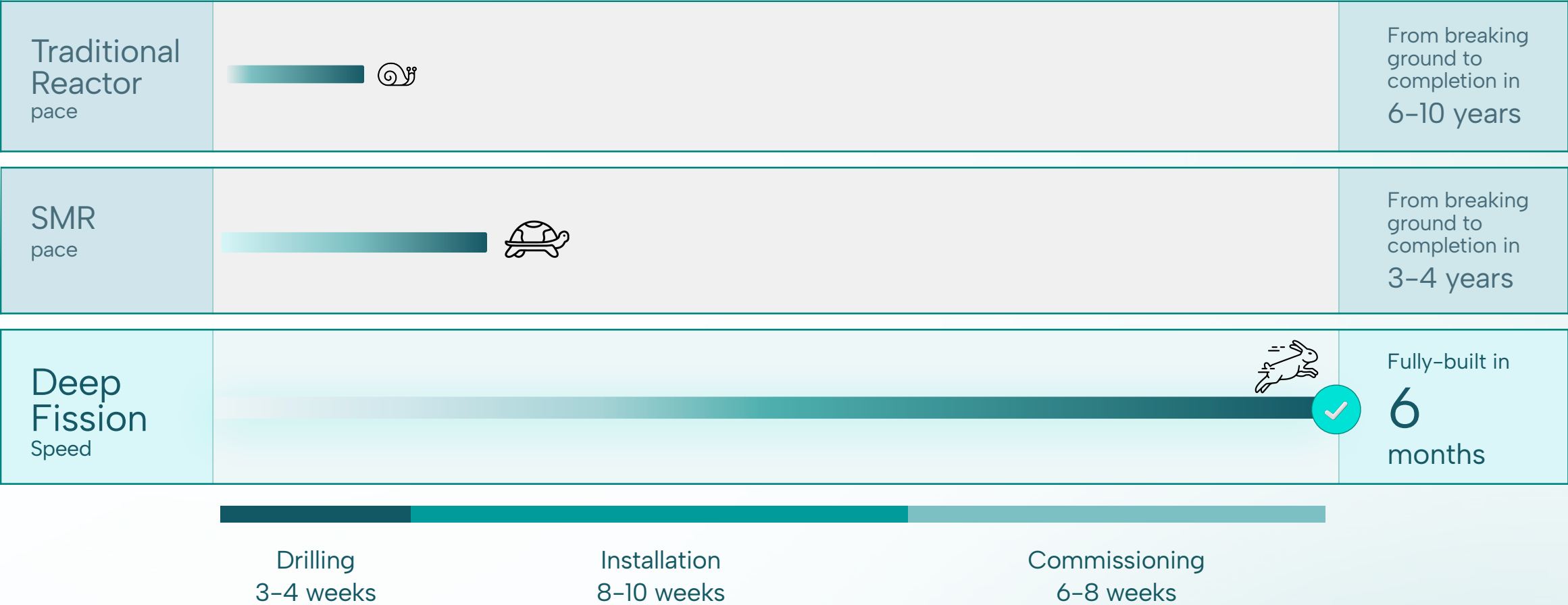
Including energy, capacity, and environmental attributes

*excludes Owner costs and contingencies

	Levelized Cost of Electricity (\$/MWh)	Overnight Installed Cost (\$/MW)
Solar PV + Storage (Utility)	\$60 – 210	\$0.85 – 1.4M
Wind + Storage (Onshore)	\$45 – 133	\$1.3 – 1.9M
Coal	\$69 – 168	\$3.31 – 7.01M
Gas Combined Cycle	\$45 – 108	\$0.85 – 1.3M
US Nuclear (Vogtle)	\$186	\$15M
Advanced /Small Modular Nuclear	N/A	~\$8 – 9M
Deep Fission	\$50 – 70	~\$2.5–3.5M*

Source: US Energy Information Administration (2023); Lazard's LCOE Report (2024); DOE Pathways to Commercial Liftoff: Advanced Nuclear

Deployment Speed: Estimated 6-month completion cycle from breaking ground to fully-built.



Regulatory Speed— 8 Tailwinds from Executive Orders



1	Speed up Reactor Licensing Creates expedited pathway to approve reactors tested by DoD and DOE. Establishes NRC deadline to license within 18 months.	Deep Fission's regulatory strategy aligns with DOE's streamlined authorization framework for reactor demonstration and supports commercial licensing by NRC.
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6	Bolster U.S. Workforce Increases in apprenticeship and education opportunities. Increases access to R&D infrastructure..	Deep Fission's leadership profile, company reputation and interdisciplinary engineering approach broadly increase talent development and cross-skilling opportunities.
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2	Add 300 GW by 2050 Expands capacity to 400 GW by 2050, including 5 GW of uprates, LPO for reactor restarts, & 10 new large-scale reactor builds.	The Deep Borehole Reactor will allow quick scaling from megawatts to gigawatts equivalent to a large scale reactor build.
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4	Deploy for AI & Military Directs DoD to build a reactor at a military installation within 3 years. Allows DOE to utilize authorities to authorize reactors for AI applications.	Deep Borehole Reactor architecture is inherently modular and scalable, enabling compact area deployment preferable for military installations.
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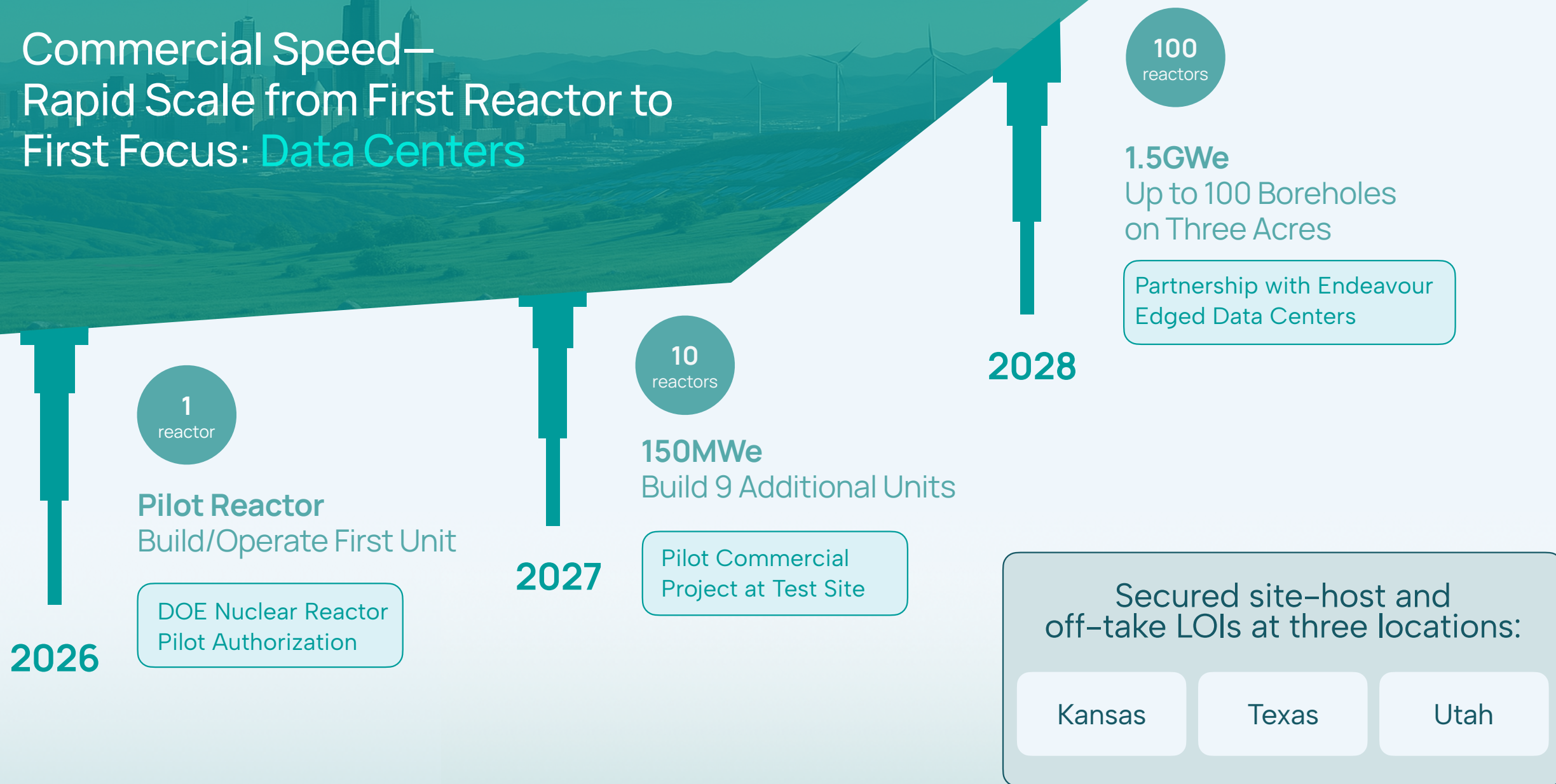
7	Spent Fuel Management Recommends national policy on spent fuel management and high-level waste that considers advanced fuel cycle.	Our deployment model encompasses safe interim storage pending identification of National, long-term storage solutions. Long-term isolation strategy is already in place through proactive collaboration with Deep Isolation.
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3	Faster Reactor Testing Launches new DOE pilot program to build and test three reactors by July 4, 2026.	On August 12, Deep Fission was selected as one of only 11 projects to participate, alongside notable companies such as Aalo Atomics and Oklo.
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5	Ramp Up Fuel Production Builds out U.S. nuclear fuel supply chain. Increases enrichment and deconversion services. Releases 20 metric tons of HALEU.	The novel approach of our reactor at-depth uses conventional LEU (not HALEU) and is more readily available than exotic alternative fuels (e.g., TRISO fuel).
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8	Expand U.S. Exports Produces strategy to increase financing for U.S. projects and promote nuclear trade.	Our reactors are designed for seamless scale anywhere in the world. Deep Fission's core assembly is assigned a TRL of 9, reflecting its wide existing commercial availability and extensive operational history.
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Commercial Speed— Rapid Scale from First Reactor to First Focus: Data Centers



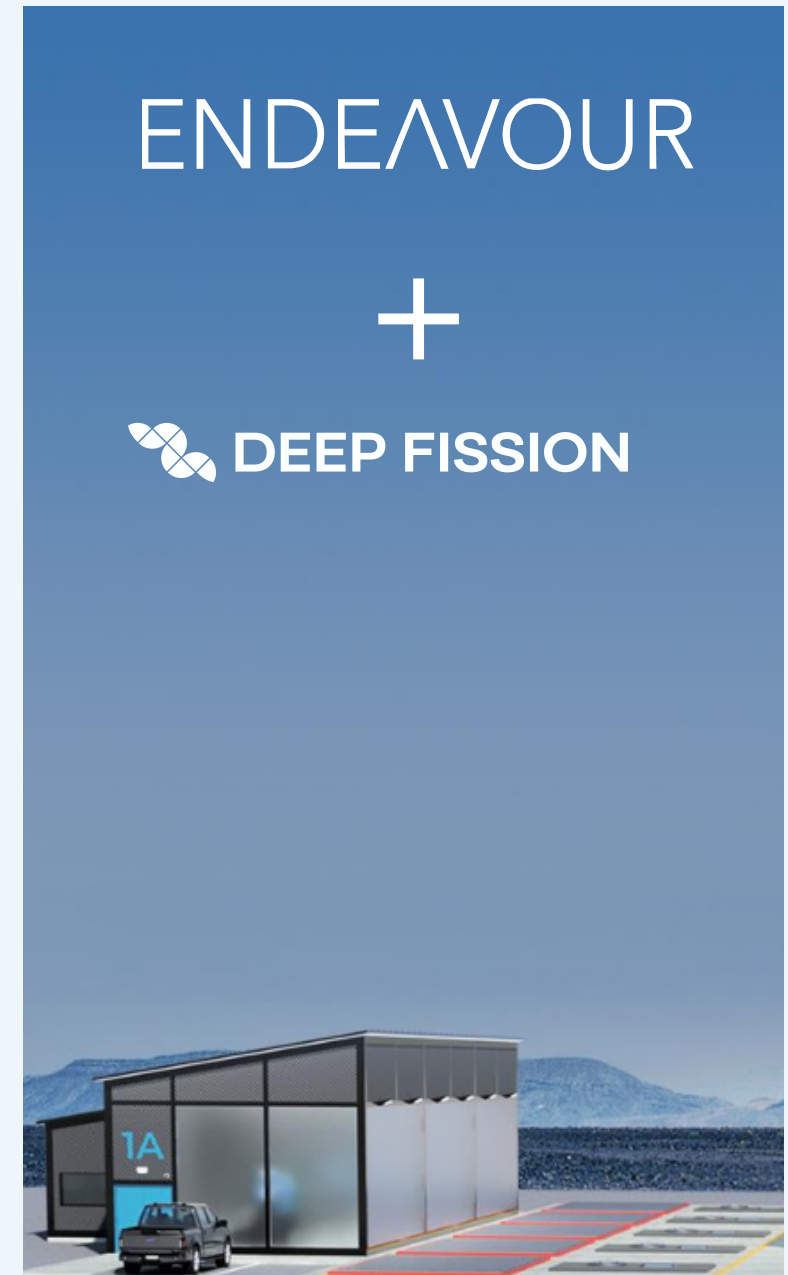
Landmark Partnership With Endeavour

Deep Fission is partnered with Endeavour, a sustainable data center infrastructure company, to co-develop 2 GW of nuclear energy, supporting sales to major cloud providers.

This partnership creates a direct commercial pathway for Deep Fission reactors in one of the fastest-growing electricity demand sectors, leveraging its unique ability to deliver reliable, zero-carbon baseload power at scale.

[World Nuclear News](#)

Full Endeavour Portfolio:



Accelerated Innovation— Deep Fission is a new class of infrastructure.

IP process is expedited vs. competitors, and portfolio of 7 patent families creates long-term IP moat and licensing potential.

Core Concept Stack				
Deep Borehole Nuclear Reactor		Storage & Deep Steam		
Deep Geologic Leverage	DBR Canister Design	Deep Casing & Containment	Rapid Install, O&M	Deep Safety & Security
• Shielding • Containment • Security • Pressurization • Rock moderation • Choice of depth	• Butterfly • Ladybug • Lune downcorner • Lune fill • Rock moderation • Choice of depth • Steam generator • Cigar burn	• Layout • Centralizer • Cement • Instrument access • Additives • Coiled tubing • Casing fill	• Pre-fab • Re-fill • AI • Load follow	• Geologic • Steam cooling • ECCS • Air exclusion



24

Pending Applications;
1 US Application Allowed

40+

Unique Innovations and Novel Concepts



This may be the most important investment of our lifetime—

Empowering a winning nuclear technology is key to leadership in the age of AI.

8 months
to July 4, 2026

1

First major breakthrough in the nuclear industry in 50 years

Novel Deep Borehole Reactor integrates nuclear energy with proven oil and gas technologies, enabling rapid, repeatable, high-volume deployment. This strategy simplifies the safety case, reduces emergency planning zones, and enables reactor siting in previously inaccessible markets.

2

High ROI is unmatched for a first-of-a-kind project

Estimated 80% cost-savings over competitor projected costs due to drastically-reduced construction budgets and timelines. Project financing includes a technology licensing fee that covers the full cost of the first commercial project in 2026 after receiving an expedited license from the NRC.

3

Investment is accelerated by significant policy tailwinds

Deep Fission's reactor pilot program strategy aligns perfectly with President Trump's national security and energy goals to ensure U.S. dominance globally. Further, the use of commercially proven technologies also facilitates regulatory acceptance and reduces the development burden associated with novel component licensing.

4

Platform revenue model with tech transfer opportunities

Provisional patents on using natural properties of the deep sub-surface to reduce the cost of nuclear power create significant IP licensing potential. LOI negotiations underscore technological readiness and compelling economics even for established players in the industry, on top of reactor system sales, lifecycle services, and Build-Own-Operate revenue streams.

Summary Investment Thesis

Speed

Estimated 6 months from breaking ground to production.

Safety

One mile underground with natural containment and pressure.

Proven

Novel combination of proven nuclear and geothermal technologies.

Scalable

Broad-range market serviceability from 15 MWe to 1.5 GWe.

Affordable

Target \$50–70 per MWh for continuous supply.

Readiness

DOE pilot program selection obtained.
Pilot facility by July 2026.
LOIs from four prospective sites.





The Fastest Path to Scale Nuclear Power

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