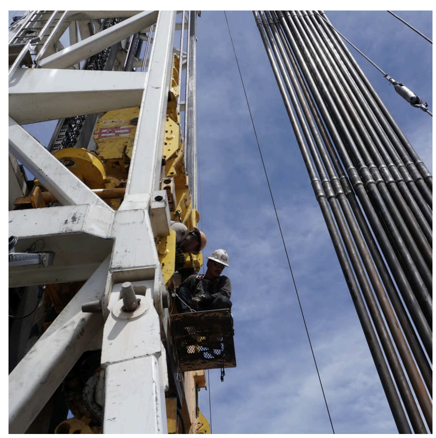
December 11, 2025

# BREAKING THROUGH

## Field Note

**by Rodi Guidero**



This year, I saw something shift. Not just in the tech, but in the teams behind it. Across our network, companies are scaling fast—turning strong ideas into operating businesses that create jobs, reduce costs, and strengthen communities.

That's our goal at Breakthrough Energy: build bigger, better companies to build better lives. In 2025, energy innovation proved it's not a niche—it's an industry. Storage projects came online. Clean manufacturing broke ground. Execution replaced aspiration. These aren't prototypes anymore. They're employers, suppliers, and anchors for stronger economies.

Looking ahead to 2026, the task is clear: keep backing the people who build. Because when great people build great companies with superior products, progress follows.

# The Current

The DOE's sweeping reorganization marks a decisive shift in US energy priorities—with mixed implications. By elevating critical minerals, consolidating key technology offices, launching new fusion and geothermal–hydrocarbon offices, and rebranding its loan program as Energy Dominance Financing, the department is sharpening its focus on energy security, supply chains, and large-scale, commercially proven systems. These moves create momentum for some technologies, while others may face fewer near-term tailwinds. And the push to expand electric power for rising AI-driven demand will shape where opportunities and pressures emerge.

For investors, the signal is clear but uneven: Washington is concentrating on mineral security, maintaining system reliability, and domestic production. Capital will follow what's viewed as most strategic to national resilience, while other areas may navigate slower progress.

**Bottom line:** The US is reshaping its energy architecture around security and supply chain strength. Investors who understand where support is intensifying—and receding—will be best positioned for the next wave of durable opportunity.

# Proof Points

As 2025 comes to a close, we're highlighting a few of the moments that mattered—milestones across our portfolio where innovation left the lab, hit the field, and delivered real-world results.

**Rondo Energy** powered up the world's largest industrial heat battery.

**Electric Hydrogen's** electrolyzer plant will be deployed at Infinium's large-scale eFuels facility in Texas.

**Fervo Energy** announced a 15-year, 31MW power purchase agreement with Shell Energy.

**Brimstone** signed a deal to supply Amazon with low-carbon cement.

**TS Conductor** announced a new $134M manufacturing facility in South Carolina to support grid modernization.

**Takeaway:** Progress isn't theoretical. These companies are scaling solutions, building markets, and redefining what affordable, reliable, clean energy looks like in action.

# Under the Hood

**by Eric Toone**

A decade into Breakthrough Energy's work, the economics of decarbonization look very different. We now have zero green premium pathways for roughly half of global emissions. That's extraordinary progress—it means cost is no longer the barrier to addressing a large share of today's emissions.

The task now is deployment at scale. Electrification will go far, but not everywhere. Heavy transport and aviation will need zero-carbon fuels that match today's performance and cost. Meanwhile, electricity demand is accelerating. AI is the early signal—even a small rise in load stresses a grid built for another era. Triple or quadruple that demand, and the system demands firm, carbon-free power available everywhere, all the time. Wind and solar remain essential, but they can't do it alone. Geothermal, fission, and fusion must fill the gap—the engineering, deployment, and materials needed to scale them make up the hard half of the next decade's work.

## Fresh Energy

New releases showing what's next in energy innovation.

*Watch*: LuxWall's new Detroit plant coming online next year.

*Read*: Disciplined Entrepreneurship for Climate & Energy Ventures and The long, fun list of things we could do with unlimited clean energy.

*Learn*: The story behind Breakthrough Energy, as told by Bill Gates.

*Explore*: Snippets of our portfolio companies in action.