Breaking Through

Founder's Note

Bill Gates, Founder

At our Breakthrough Energy Ventures Investor Summit in Houston, one message was clear: Enormous progress has been made across our portfolio—well beyond what I imagined when we started BE a decade ago. What's emerging is a set of large and growing investment opportunities. Even in a moment when the world feels uncertain, I am optimistic about what's ahead.

I had a blast meeting with some of our founders and digging into the future of clean, reliable, affordable electricity. Geothermal, fusion, and other technologies are moving quickly. We're also seeing this kind of potential in heavy industry, with companies like Brimstone rethinking cement through its Rock Refinery approach that can unlock multiple valuable products.

Another highlight was the role AI can play across this work. AI has the potential to accelerate scientific discovery, improve system design, and help scale solutions faster. Importantly, it can enhance and extend the capabilities of the Breakthrough team and the companies we support—strengthening what is already a very deliberate and differentiated approach.

I'm excited to lean in further with the team and our companies as we learn and adapt to these changes. And I'm looking forward to continuing the conversation with our investors as this next phase unfolds.

We're backing innovators building these solutions, mobilizing the long-term capital required to scale them—and I remain as committed as ever to investing for the long haul.

Read more

Field Note

Rodi Guidero, Executive Director

I left Houston energized by the builders and investors leaning into this work. Breakthrough Energy Ventures was deliberately built to transform foundational industries—the large, growing systems people depend on every day. Last week reinforced that this approach is working: Innovation is outperforming business as usual, and our companies are making real progress.

And the most exciting thing is that we are still early. Across the portfolio, companies have moved from concept… to construction… to increasingly cost-competitive solutions in real markets. That progression is what allows innovation to scale.

Bill shared his conviction that this has become an even more compelling investment opportunity given the changes we're seeing in the world. In many ways, our timing couldn't be better, and the progress is more dramatic than he expected. We've always been prepared to provide patient capital. What's becoming clear is that progress is accelerating.

We also heard directly from the team leading this work. Together, they bring a combination of scientific depth, company-building experience, and operational discipline that allows us to identify opportunity early—and turn it into real businesses. Eric brings deep scientific expertise and a deliberate, first-principles approach to identifying what matters—and what can actually work at scale. He helps us "skate to where the puck is going." Carmichael pairs that technical fluency with the instincts of a seasoned operator—turning insight into investments, and investments into companies that can scale and generate real returns.

And across our senior partners, we're seeing that same combination of expertise and execution applied across the portfolio.

This progress starts with our founders—building in hard categories—and is strengthened by our investors, an exceptional community that brings capital, perspective, and conviction. The energy in Houston made that clear.

Our path forward is clear—and demanding. Let's keep going. There's much more ahead.

THIS IS THE FUTURE

Under the Hood

Eric Toone, Chief Technical Officer

I give a tech talk every year. This year in Houston, I used it to explore how the economics of clean energy are shifting in measurable ways.

Prosperity and energy demand rise together, and that demand is still largely met by fossil fuels. For decarbonization to scale across global industrial systems, clean alternatives have to compete on cost. The green premium has to approach zero—and in some cases, turn negative. Taking on incumbent industries is too hard if you can't compete on value.

We're beginning to see that play out across the innovations we support at BE. Some technologies already have negative green premiums, where the clean option is cheaper than the incumbent. Others are at or near zero, where they can be deployed without any cost penalty. And a third group still carries a premium, but one that is steadily declining and moving toward parity.

As these cost curves continue to shift, the implications are significant. Lower costs ease system constraints, unlock capital, and begin to reshape markets around new industrial foundations.

WATCH MY TECH TALK

Builders' Bench

Carmichael Roberts, Chief Investment Officer

A small spark can start a big fire. In Houston, I spent time with founders across our portfolio whose companies began with a single insight—an idea bold enough to question how an industry works. My role is to determine whether that spark can hold: if the technology and economics are sound, and whether the team has the resilience to carry it into the real world.

At our Summit, the conversations extended across the full arc of building. From batteries, storage, and critical minerals to fully reusable rockets, we looked at how new industries take shape and what it takes to scale them. We also spent time with CEOs navigating the realities of introducing new solutions into established sectors—where progress depends on persistence, iteration, and trust.

Relieving constraints at scale requires more than capital. It requires partnership. Early projects can open the door, but enduring companies take shape when those relationships deepen into true alliances—shared risk, mutual accountability, aligned ambition. With the right structure and stewardship, a spark becomes a sustained fire—strong enough to reshape the landscape around it.

WATCH A HIGHLIGHT

Portfolio Updates

The latest from our portfolio companies coming out of Houston.

Read

Form Energy and Redwood Materials each announced partnerships with Crusoe to support AI data centers—Form Energy through a 12 GWh multi-day storage agreement, and Redwood by expanding second-life battery systems to scale capacity.

Fervo Energy secured $421M in financing for Cape Station, advancing next-generation geothermal.

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