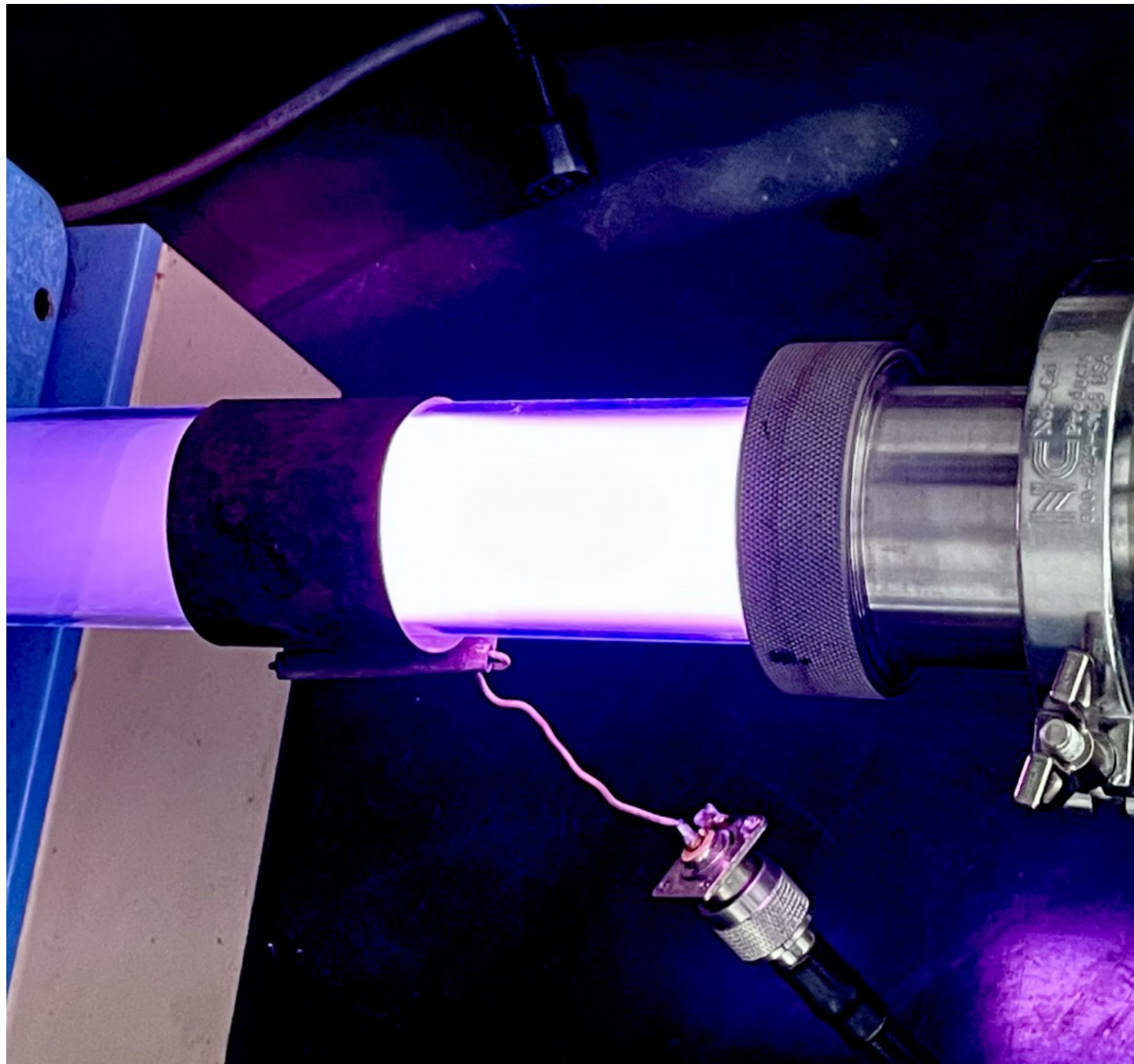


Plasma Nanoparticles are Huge!

4th State Energies CTO Selected as a 2025 Activate Fellow.



Riverside, California Jul 8, 2025 ([Issuewire.com](https://www.issuewire.com)) - **4th State Energies (a dba of SiLi-ion, Inc.)** proudly announces that its Chief Technology Officer, **Dr. Pankaj Ghildiyal**, has been selected as a **2025 Activate Fellow**, one of the most competitive and prestigious programs for scientist-entrepreneurs building transformative deep-tech ventures.

The Activate Fellowship, supported by the U.S. Department of Energy, Schmidt Futures, and other organizations, empowers scientists and engineers to transform cutting-edge research into scalable, world-changing businesses. Fellows receive a two-year paid fellowship, funding, mentorship, and

access to a world-class innovation ecosystem. This year's 47 fellows were selected from over 900 applicants, representing the most competitive cohort to date. Collectively, Activate alumni have raised over **\$4 billion**, built **236 companies** – including unicorns such as **Twelve, Fervo Energy, and Brimstone** – and created nearly 3,000 new jobs across the U.S.

"This honor underscores our CTO's pioneering work in next-generation lithium-ion batteries. It validates the technology developed by Pankaj, which overcomes the long-standing technical hurdles associated with silicon-enhanced batteries," said **Dr. Mark Hatch**, CEO of 4th State Energies. "The fellowship will fuel the next phase of our mission to fully replace graphite and leapfrog current silicon solutions with our breakthrough combination of high energy density, low cost, and manufacturing compatibility," stated **Dr. Lorenzo Mangolini**, Founder and Chairman.

4th State Energies' innovation, ultra-small plasma-produced silicon powders, delivers over **four times the energy density** of conventional graphite. By eliminating 100% of graphite, a critical mineral facing increasing geopolitical and sustainability pressure, the company's technology radically reduces CO₂ emissions while enabling a domestically manufactured, drop-in upgrade compatible with today's gigafactory infrastructure.

"I'm incredibly honored to join the Activate Berkeley community," said **Dr. Ghildiyal**. "This opportunity accelerates both technical development and strategic partnerships as we prepare to scale our materials to serve drone, e-mobility, and EV markets."

Through the fellowship, Dr. Ghildiyal will gain direct access to national labs, investors, and leading industry mentors. This positions 4th State Energies for high-impact commercialization at global scale. His selection also marks the first Activate Fellow from Southern California's Inland Empire region.

About 4th State Energies (a dba of SiLi-ion, Inc.)

4th State Energies develops plasma-engineered, drop-in silicon anode materials that fully replace graphite in lithium-ion batteries. Its patented technology enables higher energy density, lower costs, and seamless integration into today's gigafactory infrastructure. A UC Riverside spin-out, 4th State Energies, is pioneering silicon-enhanced batteries across EVs, drones, and electronics. [4th State Energies](#).

About Activate

Activate.org empowers scientists and engineers to bring their research to market as high-impact startups. Activate is a 501(c)(3) nonprofit and does not charge any fee nor equity for fellows to participate. Activate's entrepreneurial fellowship model originated at Cyclotron Road, founding Activate partner and the first U.S. Department of Energy's [Lab-Embedded Entrepreneurship Program \(LEEP\)](#) started at Lawrence Berkeley National Laboratory. Activate supports fellows in communities across the United States: Activate Berkeley, Activate Boston, Activate New York, Activate Houston, and Activate Anywhere. The program is made possible through partnerships with federal agencies and philanthropic supporters. [Activate.org](#).

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We have a policy to respond to media enquiries within one hour. Please text.



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