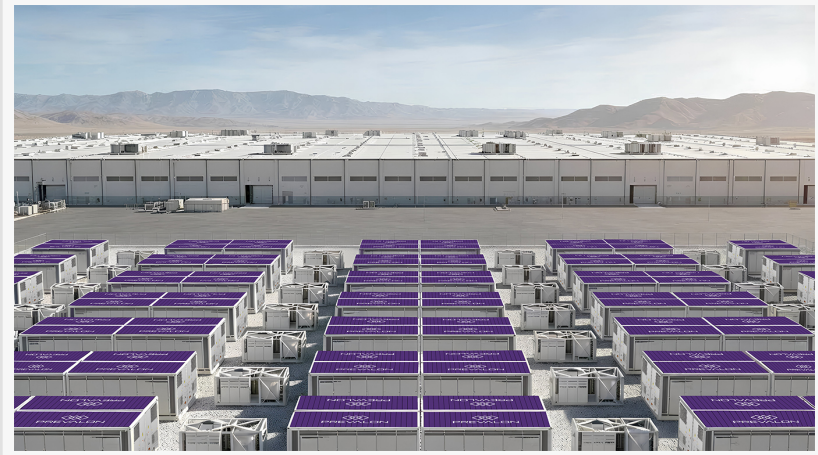
Prevalon Advances Hybrid Power Stabilizer (HPS) for AI Data Centers with Hardware Testing Across Real-World Use Cases

Hardware-based testing establishes deployment-ready control strategies across diverse AI workloads and system configurations



HEATHROW, FL, UNITED STATES, April 21, 2026 /EINPresswire.com/ -- Prevalon® Energy LLC, a leading provider of integrated energy storage solutions, announced today that it is conducting advanced hardware-based testing of its Hybrid Power Stabilizer (HPS) platform in collaboration with the U.S. Department of Energy's (DOE's) National Laboratory of the Rockies.

The testing program is focused on expanding how the Hybrid Power Stabilizer performs across a wide range of real-world AI data center operating conditions. As hyperscale facilities deploy increasingly complex GPU- and accelerator-based architectures, power demand is becoming more dynamic—requiring systems that can respond instantly and operate reliably.

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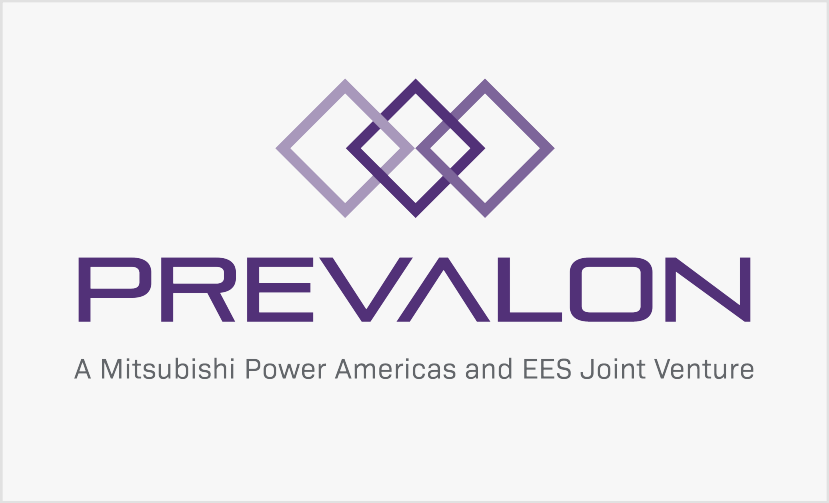
>
> *Alejandro Schnakofsky, Chief Technical Officer*

This effort builds on proven system performance and is focused on optimization of control settings and strategies—developing deployment-ready control profiles across a spectrum of AI workloads, power system architectures, and on-site generation technologies, including gas turbines, fuel cells, and reciprocating engines.

The test campaign will leverage Prevalon's HPS system across diverse AI-driven load scenarios, including rapid changes in load magnitude, frequency, and variability. Testing is designed to align

system response with different deployment environments, from grid-connected to hybrid and fully islanded data center architectures.

Additional scenarios—including loss of load, loss of generation, and system fault conditions—will be introduced to refine control responses and ensure consistent system behavior across both expected and edge-case conditions.



The Hybrid Power Stabilizer operates at the power electronics layer, coordinating battery energy storage with on-site generation and grid interfaces to actively manage power quality and system stability. Testing will focus on how HPS maintains voltage and frequency within power quality limits, executes contingency response and system ride-through, and protects synchronous machines from transient and frequency-driven stress events.

“AI-driven data centers introduce a level of load variability that requires a different approach to power system design,” said Alejandro Schnakofsky, Chief Technical Officer at Prevalon Energy. “We’ve already demonstrated that Hybrid Power Stabilizer can manage these conditions. This work is about establishing control settings and strategies across different architectures and workloads—so our customers can deploy with confidence in any configuration.”

The testing is being conducted using DOE laboratory infrastructure designed for large-scale, high-power system evaluation, in collaboration with hyperscalers and AI data center developers. Insights from the program will directly inform how HPS is configured and deployed to meet the specific needs of each customer environment.

The Hybrid Power Stabilizer is built on Prevalon’s Energy Storage Platform and powered by insightOS™, Prevalon’s U.S.-built, utility-grade energy management system. Together, they enable real-time coordination of power resources—delivering the speed, control, and reliability required for next-generation data center infrastructure.

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About Prevalon Energy LLC
Commitment, reliability, expertise. These are the ideals that guide our decision making, design philosophy, and relationship building. Prevalon® Energy LLC (Prevalon), a Mitsubishi Power Americas and EES joint venture, is empowering companies to deploy flexible energy solutions and accelerate a more sustainable energy future. With over 35 projects and 6+ GWh of utility-scale global battery energy storage deployed, Prevalon delivers end-to-end integrated battery

energy storage solutions that ensure performance throughout the entire project lifecycle. From design and engineering, energy management systems integration, commissioning, and long-term service programs, the Prevalon Battery Energy Storage Platform meets the demands of your energy system today and into the future. For more information, visit PrevalonEnergy.com and follow us on LinkedIn

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