Noon Energy Announces Successful 100+ Hour Battery Demo for Groundbreaking Multi-Day and Seasonal Storage

Noon Energy unlocks a clean energy future, transforming low-cost energy sources like intermittent solar and wind into a constant reliable power source



Noon Energy's Energy Storage System

PALO ALTO, CA, UNITED STATES, January 21, 2026 /EINPresswire.com/ -- Noon Energy has demonstrated successful long-term operation of its scaled-up ultra-long-duration energy storage (ultra-LDES) system that provides a groundbreaking 100+ hours of energy storage capacity, the missing link to clean, reliable electricity 24/7 year-round. The reversible solid oxide fuel cell battery is the first fully containerized, modular ultra-LDES system successfully operated for thousands of hours, with storage of over 200 hours of energy capacity, marking an incredible milestone in the energy industry.

Multiple sectors are desperate for constant reliable energy, including explosive data center load growth, driven by AI - now outpacing utility planning and grid build-out timelines. Data centers alone are projected to consume up to 12% of total U.S. electricity by 2028, forcing developers to think beyond the traditional grid model. Bring-Your-Own-Generation (BYOG) is one of these paths, but variable renewable energy (VRE) sources, like solar and wind, must be coupled with robust storage to provide consistent electricity to maintain uptime. When co-located with VRE sources, Noon Energy's ultra-LDES system can store 100+ hours of energy for multi-day capacity management, and integrate with short-duration batteries to smooth power delivery and cover immediate, high-intensity needs. Today, most renewable energy is stored in lithium-ion batteries that are sized for 2 to 10 hours. Combining this with a Noon battery, which has 50 times that energy capacity, is the optimal configuration for cost and performance — two critical factors for data center success in the AI race.

“We are excited to have commissioned our multi-module demonstration system and demonstrated its lifetime, thanks to the excellent work of our incredible engineering team. This is a key milestone for our breakthrough technology’s scale-up,” said Chris Graves, co-founder and CEO of Noon Energy. “We have also built an even larger, commercial scale system, being commissioned soon with more details to come. Noon’s unique energy storage system enables low-cost, clean firm power for hyperscalers and other industrial load growth, which form an important part of our large customer pipeline.”

Key Features of Noon Energy’s Energy Storage System

Noon Energy’s system is a breakthrough in low-cost ultra-LDES. It enables inexpensive energy sources, including intermittent renewables, to become reliable and economical - delivering power 24 hours a day, 365 days of the year, regardless of power shortages or day-to-day/seasonal shifts in sun and wind.

Key Features Include:
- 100+ Hour Discharge Duration: Provides a constant, multi-day stream of power, critical for 100% reliable uninterrupted energy.
- Compact Design: 20 to 200 times smaller footprint than other storage technologies such as flow batteries and pumped hydro gravity storage, and 2 to 3 times smaller than lithium-ion systems.
- Cost Efficiency: Separate scaling of power capacity and very low cost energy capacity keeps costs nearly flat as storage duration increases, making multi-day storage economically viable.
- Domestic Supply Chain: Uses around one percent of critical elements compared with lithium-ion batteries, ensuring the system is resilient to geopolitical and supply chain disruptions.

Noon Energy’s battery demo is now live. This demo has been supported by the California Energy Commission. To learn more, visit noon.energy.

About Noon Energy
Noon Energy is an ultra-long duration energy storage company that is developing novel solutions to solve the renewable energy intermittency problem, enabling a resilient, secure, and affordable energy future. Founded in 2018, Noon Energy has developed a revolutionary battery technology for ultra-long-duration energy storage of 100+ hours that stores energy using abundant elements, such as carbon and oxygen, instead of relatively scarce metals like lithium. Noon Energy has raised more than $50 million in venture capital and government grants from At One Ventures, Emerson Collective, Clean Energy Ventures, Aramco Ventures, Prime Impact Fund, Elemental Impact, and others.

To learn more about the company, visit noon.energy and follow along on LinkedIn.

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