

Sodium-ion battery mass production energy storage



Overview

Technology advancements enabled electric vehicles and energy storage to displace legacy solutions. Batteries now replace gas peaking power plants in utility peak demand and grid stability applications. While CATL has been making sodium-ion batteries for some time, production commitment has increased dramatically in 2026. CATL introduced its Naxtra line of batteries earlier in 2025 and has now announced plans for volume production of sodium-ion batteries this year, with integration into production. Sodium-ion batteries use less expensive, more abundant materials compared to lithium-ion chemistry, directly lowering production costs. The cells achieve an energy density of 175Wh/kg —on par with lithium iron phosphate batteries—and are capable of supporting driving ranges of up to 500.

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Technology Strategy Assessment

Much of the attraction to sodium (Na) batteries as candidates for large-scale energy storage stems from the fact that as the sixth most abundant element in the Earth's crust and the fourth most abundant ...

CATL to Start Sodium-Ion Battery Production in 2025

CATL is bringing sodium-ion batteries to commercial scale, with plans to begin mass production of its new Naxtra cells in December 2025. The move positions the company to challenge ...



Advancements in sodium-ion batteries technology: A comprehensive ...

Sodium-ion batteries (SIBs) have emerged as a promising alternative to lithium-ion batteries (LIBs) due to the abundance, cost-effectiveness, and environmental benefits of sodium ...

Sodium-ion batteries: Should we believe the hype?

Increases in the energy density of sodium-ion batteries means they are now suitable for stationary energy storage and low-performance electric vehicles. The abundance of raw material for making ...



Sodium-Ion Batteries Will Gain Ground This 2026 , IMI

Suited for stationary energy storage applications Sodium-ion batteries are poised to replace lead-acid cells in combustion engines and support stationary energy storage, where safety and cost ...

An overview of sodium-ion batteries as next-generation sustainable

While efforts are still needed to enhance the energy and power density as well as the cycle life of Na-ion batteries to replace Li-ion batteries, these energy storage devices present significant advantages in ...



Next-generation anodes for high-energy and low-cost

sodium-ion

Sodium-ion batteries are promising low-cost alternatives to lithium-ion systems yet limited by underperforming anodes. This Review highlights advances and challenges in hard carbon and ...



5 Key Takeaways From CATL's Naxtra Sodium-Ion Battery Launch

According to Gao Huan, Chief Technology Officer of CATL's sodium-ion division, Naxtra batteries offer a viable, lithium-free solution to meet the growing global demand for sustainable ...



Why Sodium-Ion Batteries Are Happening Now

While some applications like energy storage have switched to LFP, until now sodium-ion batteries have not been produced at the same volume levels. The question is, why?

CATL Sodium-Ion Batteries In Passenger EVs Q2 2026 , 175 Wh/kg

CATL's Naxtra sodium-ion batteries enter mass production in passenger vehicles starting Q2 2026. 175 Wh/kg energy density, 90% capacity at -40°C, lower costs.



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