Sodium-ion battery for energy storage commercialization

Overview

Sodium-ion battery costs hit $45-55/kWh in 2026, roughly 30% cheaper than LFP, making them ideal for grid storage and entry-level EVs Energy density has reached 160 Wh/kg (comparable to early LFP), sufficient for 250-mile range urban EVs and residential energy storageSodium-ion battery costs hit $45-55/kWh in 2026, roughly 30% cheaper than LFP, making them ideal for grid storage and entry-level EVs Energy density has reached 160 Wh/kg (comparable to early LFP), sufficient for 250-mile range urban EVs and residential energy storageSodium-ion batteries (SIBs) have emerged as one of the most promising alternatives to lithium-ion systems, driven by the abundance and low cost of sodium resources as well as the urgent demand for sustainable large-scale energy storage. In recent years, remarkable advances have been achieved in. Sodium-ion batteries are emerging as a new player in battery markets, offering opportunities to diversify battery chemistries and supply chains at a time of rising global demand for electric vehicles and energy storage. This target emphasizes the need for scalable chemistries with lower materials cost floors and manufacturable system designs. This cost breakthrough stems from three fundamental advantages: sodium's 1000x greater crustal. According to EnergyTrend on-site at SNEC 2026, CATL unveiled the latest commercialization progress of its sodium-ion battery energy storage solutions. Per its roadmap, CATL will deliver the first batch of sodium-ion energy storage systems to customers officially in September this year (Q3), with. Sodium-ion batteries (SIBs) offer a compelling alternative to lithium-based cells.

Article Content

The research and industrialization progress and prospects of sodium

With the progressive research on sodium ion batteries, the capacity and voltage as well as the cycling stability will be further improved, which will facilitate the early application of inexpensive

Sodium-ion batteries in 2025: a snapshot of the fast

Market-moving headlines from the past 12 months Reliance Industries completed a full buy-out of Faradion and broke ground on a 30 GWh

Sodium-Ion Batteries: Advances, Challenges, and Roadmap to ...

Sodium-ion batteries (SIBs) have emerged as one of the most promising alternatives to lithium-ion systems, driven by the abundance and low cost of sodium resources as well as the urgent

From lab to market with sustainable sodium-ion batteries

This Review provides an overview of various sodium-ion chemistries with respect to key criteria, including sustainability, before discussing potential solutions, market prospects and future...

Sodium-Ion Battery Commercialization Accelerates at SNEC 2026

Leading Brands Are Now Shipping GW-Scale Products At the exhibition, CATL officially debuted its sodium-ion energy storage product line, supporting its chief scientist''s statement that "sodium-ion ...

Sodium-Ion Batteries

Purpose: Provide a neutral, technical and market-oriented briefing on sodium-ion batteries (SIBs) to support SBIG discussion, standards coordination, and commercialization readiness.

CIBF 2026 Anchors Global Value Chains to Power Next-Gen Energy Storage

Battery technologies continue to diversify, with solid-state and sodium-ion batteries accelerating toward large-scale commercialization.

Sodium-Ion Battery Cathode and Anode Materials

Sodium-Ion Battery Cathode and Anode Materials: Key Technologies Driving Renewable Energy Storage In recent years, maa sodium-ion (SIBs) have become a hot topic in the renewable

Sodium-ion Energy Storage Makes Key Breakthroughs, Batch

According to EnergyTrend on-site at SNEC 2026, CATL unveiled the latest commercialization progress of its sodium-ion battery energy storage solutions. Per its roadmap,

Sodium-Ion Batteries: Current Developments and the Future

Advancements in sodium-ion batteries are reshaping energy storage by focusing on cost-effective, sustainable solutions enabled by improved materials and manufacturing.

CATL Naxtra: Sodium-Ion Batteries Take Center Stage

Explore CATL''s Naxtra sodium-ion batteries with 175 Wh/kg energy density, fast charging, and sustainability for EVs.

Gotion Debuts Gnascent Sodium Ion Batteries with GW Scale

Gotion High-Tech launched Gnascent sodium-ion batteries, featuring three variants—from 261 Wh/kg High-Energy cells to 180 Ah storage models, supported by GW-scale

GM and Peak Energy Partner to Advance Sodium-Ion Battery

General Motors (GM) and Peak Energy have entered into a strategic partnership aimed at accelerating the development and deployment of sodium-ion battery cells for grid-scale energy

Sodium-ion battery momentum grows, but challenges

Sodium-ion batteries are emerging as a new player in battery markets, offering opportunities to diversify battery chemistries and supply chains

Review Comprehensive review of Sodium-Ion Batteries: Principles ...

While sodium-ion batteries have lower energy density than lithium-ion batteries, they provide a sustainable and cost-effective energy storage solution for specific applications such as grid

Sodium-Ion Batteries 2026: Complete Technical & Economic Analysis

Comprehensive 2026 analysis of sodium-ion batteries: $60/kWh cost breakthrough, 170 Wh/kg density, hard carbon anodes, Prussian Blue cathodes. CATL, HiNa, Northvolt deployments.

Sodium-Ion Battery Cathode and Anode Materials: 2026 Industry

With continuous breakthroughs insodium-ion battery cathode materials futhi anode materials, and the gradual improvement of the industry chain, sodium-ion batteries are emerging as

Sodium Ion Batteries: From Basic Research to Industrialization

By synthesizing fundamental research progress, addressing key bottlenecks in industrialization, and proposing viable solutions, this work aims to accelerate the commercialization

Sodium-ion batteries

Stay updated on sodium-ion battery technology developments, including new innovations and applications in energy storage.

EV battery leader CATL is gearing up for sodium-ion

When is CATL launching sodium-ion EV batteries? Through October, CATL accounted for 38.1% of the global EV battery market in 2025.

CATL says sodium batteries are mainstream-ready, signs ...

CATL, the world''s largest battery maker, signed a 60 GWh sodium-ion battery deal with energy storage integrator HyperStrong — the largest sodium-ion battery order ever placed. The three

CATL plans 40 GWh sodium battery capacity expansion

The two parties signed a three-year supply contract for 60 GWh of energy storage sodium-ion batteries, setting a new record for the industry. CATL said in a statement that this order

CATL to Deploy Sodium-Ion Batteries at Scale in 2026

CATL plans large-scale sodium-ion battery deployment in 2026 for swap systems, EVs, and energy storage. Its Naxtra cells offer up to 175 Wh/kg

Sodium-ion Battery Energy Storage System_Baiduwiki

Some companies have already established dedicated production lines for sodium-ion batteries and achieved operational status. Sodium-ion battery energy storage systems feature characteristics such

A closer look at CATL''s new sodium-ion battery

The battery manufacturing heavyweight presented its latest sodium-ion products at ESIE 2026 earlier this month, expanding its push into grid-scale

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