

## European Solar Energy Storage

# Sodium-ion battery energy storage electricity price



## Overview

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SMM brings you current and historical Sodium-ion Battery price tables and charts, and maintains daily Sodium-ion Battery price updates.

By harnessing the natural abundance of sodium, an element found in something as common as table salt, CATL has slashed energy storage costs to an unprecedented \$10 per kilowatt-hour. This innovation has the potential to transform not just electric vehicles (EVs) but also renewable energy systems.

Sodium-ion batteries are becoming increasingly competitive in the energy storage market. As reported by [poweringautos.com](https://poweringautos.com), the projected price for sodium-ion batteries in 2024 is approximately \$85 per kWh, which is lower than the estimated \$89 per kWh for lithium-ion batteries. This pricing gives.

Wider deployment and the commercialisation of new battery storage technologies has led to rapid cost reductions, notably for lithium-ion batteries, but also for high-temperature sodium-sulphur (“NAS”) and so-called “flow” batteries. Small-scale lithium-ion residential battery systems in the German.

With sodium priced at \$0.05 per kilogram compared to lithium's \$15, sodium-ion batteries offer a 300-fold cost advantage in raw materials. This affordability positions them as a breakthrough solution for price-sensitive applications, diminishing reliance on scarce materials like cobalt and nickel.

Cell specifications, expected applications, and mass production plans of Na-ion battery players. Note: Gen 1 cell specifications as achieved are shown here,

with gen 2 cell targeted energy densities listed. Source: IDTechEx. Promising fields of applications for sodium-ion batteries. Source: How much would a sodium ion battery cost in the future?

Based on material costs of \$4 per kWh there could be \$8 to \$10 per kWh sodium ion batteries in the future. This would be ten times cheaper than energy storage batteries today. Soda Ash Mine in Wyoming.

Are sodium-ion batteries a viable alternative to lithium-ionic batteries?

The sodium-ion battery market is gaining significant traction as a sustainable and cost-effective alternative to lithium-ion technology. With sodium priced at \$0.05 per kilogram compared to lithium's \$15, sodium-ion batteries offer a 300-fold cost advantage in raw materials.

How much does sodium ion cost per kWh?

However, the second generation sodium ion could reach \$40 per kWh. Iron LFP batteries could get to \$50/kWh with really high volume and efficiency at the cell level. The future low price of sodium ion would make for insanely cheap fixed storage products like the Tesla Megapack and Powerwalls. They also do not have practical material limits.

How much power does a sodium battery produce?

The first factory has about a 40 GWh per year capacity. China has 16 out of 20 globally planned or built sodium battery factories according to Benchmark Minerals. CATL's first-generation sodium battery generates 160-watt-hours per kilogram. This is 10% less energy than iron LFP batteries and 40% less than mass produced nickel batteries.

How much energy does a first-generation sodium battery produce?

CATL's first-generation sodium battery generates 160-watt-hours per kilogram. This is 10% less energy than iron LFP batteries and 40% less than mass produced nickel batteries. CATL plans to increase the energy density of next generation sodium ion to 200 Wh/kg.

What is the global market for sodium-ion batteries 2026-2036?

Dublin, June 19, 2025 (GLOBE NEWSWIRE) -- The "Global Market for Sodium-ion Batteries 2026-2036" report has been added to ResearchAndMarkets.com's offering. The sodium-ion battery market is

experiencing unprecedented momentum as industries worldwide seek sustainable, cost-effective alternatives to traditional lithium-ion technology.

## Sodium-ion battery energy storage electricity price

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### Sodium Ion Energy Storage System Price: The \$45/kWh ...

But what's driving their sudden price competitiveness? Let's unpack the numbers behind the \$45-\$65/kWh price range that's making engineers rethink century-old energy paradigms .

### Global Market for Sodium-ion Batteries 2026-2036: Sodium-Ion ...

This 300-fold price differential in raw materials translates directly into more affordable battery systems, positioning sodium-ion technology as a game-changer for price ...



### Hithium unveils 6.25 MWh BESS, sodium-ion ...

Chinese energy storage specialist Hithium has used its annual Eco Day event to unveil a trio of innovative products: a 6.25MWh lithium-ion battery energy storage system (BESS), a specialized sodium ...

### Future Sodium Ion Batteries Could Be Ten Times ...

Based on material costs of \$4 per kWh there

could be \$8 to \$10 per kWh sodium ion batteries in the future. This would be ten times cheaper than energy storage batteries today.



### Lower-cost sodium-ion batteries are finally having ...

Sodium-ion batteries for electric vehicles and energy storage are moving toward the mainstream. Wider use of these batteries could lead to lower costs, less fire risk, and less need for lithium

### Future Sodium Ion Batteries Could Be Ten Times ...

The first generation sodium ion are a bit cheaper than LFP but the volumes will not be worldchanging. However, the second generation sodium ion could reach \$40 per kWh. Iron LFP batteries could get to ...



### World's largest sodium-ion project comes online in ...

The project in Hubei, China. Image: Datang / Hina Battery. The first phase of the world's largest sodium-ion battery energy storage system (BESS), in China, has come online. The first 50MW/100MWh ...

## Sodium-Ion Batteries: A Promising Alternative to ...

Sodium-ion batteries have a similar mechanism to Lithium-ion batteries. They use ions to create an electric charge, storing energy that can power devices and vehicles.



Support Customized Product



## Battery Prices Drop, BYD's Sodium-Ion Innovation Leads the ...

As the cost of lithium-ion batteries continues to fall, BYD, the world's largest electric vehicle (EV) manufacturer, has unveiled its first high-performance sodium-ion battery ...

## Critically assessing sodium-ion technology ...

The energy transition requires massive deployment of batteries for electric vehicles (EVs) and stationary energy storage systems (ESS). Lithium-ion (Li-ion) batteries have been responsible for



## Sodium-ion Batteries 2025-2035: Technology, ...

Sodium-ion Batteries 2025-2035 provides a comprehensive overview of the sodium-ion battery market, players, and technology trends. Battery benchmarking, material and cost analysis, key player patents, and 10 year ...



## Comprehensive review of Sodium-Ion Batteries: Principles, ...

Sodium-ion batteries have a significant advantage in terms of energy storage unit price compared to lithium-ion batteries. This cost-effectiveness stems from the abundance and ...



## Energy Storage Cost and Performance Database

The U.S. Department of Energy's (DOE) Energy Storage Grand Challenge is a comprehensive program that seeks to accelerate the development, commercialization, and utilization of next-generation energy storage ...



## Sodium-ion Batteries: Inexpensive and Sustainable Energy ...

Introduction With an increasing need to integrate intermittent and unpredictable renewables, the electricity supply sector has a pressing need for inexpensive energy storage. There is also ...





## Sodium Ion Energy Storage Price: The \$100 Billion Game ...

The sodium ion energy storage price has plummeted to 1.03¢/Wh (\$0.14/Wh) in China's latest mega-project bids [1], making industry veterans do double-takes. But is this rock-bottom pricing ...

### Energy storage costs

Informing the viable application of electricity storage technologies, including batteries and pumped hydro storage, with the latest data and analysis on costs and performance.



## BYD details first 2.3 MWh sodium-ion battery pack ...

BYD's 2.3 MWh MC Cube, however, provides higher energy density and performance, and could bring electricity costs below the \$0.03/kWh mark of the solution with HiNa's sodium-ion grid battery.

## Sineng Electric launches world's largest sodium ...

Sineng Electric's 50 MW/100 MWh sodium-ion battery energy storage system (BESS) project in China's Hubei province is the first phase of a larger plan that will eventually reach 100 MW/200 MWh. The



## Are Sodium Ion Batteries The Next Big Thing In Solar Storage?

Sodium ion batteries are next-generation energy storage products. How do they stack up against lithium ion batteries, the longtime consumer favorite?



### Sodium-ion battery

In February 2023, the Chinese HiNA placed a 140 Wh/kg sodium-ion battery in an electric test car for the first time, [16] and energy storage manufacturer Pylontech obtained the first sodium-ion battery certificate [clarification ...



## First sodium-ion battery storage station at grid level ...

Clean electricity generation paired with the first grid-level sodium battery energy storage system can bring costs down to just \$0.028 per kWh. The 10 MWh storage capacity is executed with sodium



## Peak Energy just shipped the US's first grid-scale sodium-ion battery

Peak Energy debuts the US's first grid-scale sodium-ion battery, cutting costs and boosting reliability with passive cooling tech.



## Sodium-ion batteries need breakthroughs to compete

A thorough analysis of market and supply chain outcomes for sodium-ion batteries and their lithium-ion competitors is the first by STEER, a new Stanford and SLAC energy technology analysis program.

## Electric vehicle battery prices are expected to fall almost 50% by ...

Technology advances that have allowed electric vehicle battery makers to increase energy density, combined with a drop in green metal prices, will push battery prices ...

### Commercial and Industrial ESS

Air Cooling / Liquid Cooling

- Budget Friendly Solution
- Renewable Energy Integration
- Modular Design for Flexible Expansion



## Sodium-Based Energy Storage , ARPA-E

Sharp Laboratories of America and their partners at the University of Texas and Oregon State University are developing a sodium-based battery that could dramatically ...



## An overview of sodium-ion batteries as next ...

The rise in the popularity of electric vehicles and portable devices has boosted the demand for rechargeable batteries, with lithium-ion (Li-ion) batteries favored for their superior energy and power density. However, ...



## The Race To Replace Lithium: Is Sodium the ...

Sodium-ion is perhaps the most compelling near-term challenger to lithium-ion, and many battery companies announced plans of major build out of sodium-ion manufacturing, promising pathways to lower ...

## Sodium-ion 50MW/100MWh project to be built in China this year

A large battery energy storage system (BESS) project in Hubei, China, using sodium-ion technology, is set to be completed this year.





## Energy Storage Costs: Trends and Projections

This landscape is shaped by technologies such as lithium-ion batteries and large-scale energy storage solutions, along with projections for battery pricing and pack prices.

## Battery storage and renewables: costs and markets to 2030

Battery electricity storage is a key technology in the world's transition to a sustainable energy system. Battery systems can support a wide range of services needed for the transition, from ...



## Sodium-ion Batteries 2024-2034: Technology, ...

Sodium-ion Batteries 2024-2034 provides a comprehensive overview of the sodium-ion battery market, players, and technology trends. Battery benchmarking, material and cost analysis, key player patents, and 10 year ...

## Sodium-ion Battery price today , Historical New Energy Price

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