

## Global PV Storage Insights

# Sodium ion battery storage cost breakdown in Hungary 2026



## Overview

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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.

The recent significant decline in battery prices and the improvement in energy density have created new opportunities for battery-powered vehicles in all areas of transport. Nowadays, the use of electric vehicles, from downtown motorized scooters to heavy-duty long-distance trucks, is increasingly.

The sustained high price of lithium carbonate has intensified cost pressures on downstream power battery and energy storage companies. At the same time, it has opened a market window for sodium-ion batteries (hereinafter referred to as sodium batteries), an emerging technological pathway. Although.

The average cost for sodium-ion cells in 2024 is \$87 per kilowatt-hour (kWh), marginally cheaper than lithium-ion cells at \$89/kWh. Assuming a similar capex cost to Li-ion-based battery energy storage systems (BESS) at \$300/kWh, sodium-ion batteries' 57% improvement rate will see them increasingly.

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. 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.

How much will sodium ion batteries cost in 2028?

Assuming a similar capex cost to Li-ion-based battery energy storage systems (BESS) at \$300/kWh, sodium-ion batteries' 57% improvement rate will see them increasingly more affordable than Li-ion cells, reaching around \$10/kWh by 2028.

Will sodium-ion batteries dominate the future of long-duration energy storage?

With costs fast declining, sodium-ion batteries look set to dominate the future of long-duration energy storage, finds AI-based analysis that predicts technological breakthroughs based on global patent data. Sodium-ion batteries' rapid development could see long-duration energy storage (LDES) enter mainstream use as early as 2027.

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.

Will sodium-ion batteries disrupt the LDEs market?

Credit: Fahreni/Shutterstock. Sodium-ion batteries are set to disrupt the LDES market within the next few years, according to new research - exclusively seen by Power Technology's sister publication Energy Monitor - by GetFocus, an AI-based analysis platform that predicts technological breakthroughs based on global patent data.

What is a sodium ion battery?

Overall, we provide a broad and interdisciplinary perspective on modern batteries and future directions for this field, with a focus on sodium-ion batteries. Sodium-ion batteries are an appealing alternative to lithium-ion batteries because they use raw materials that are less expensive, more abundant and less toxic.

## Sodium ion battery storage cost breakdown in Hungary 2026

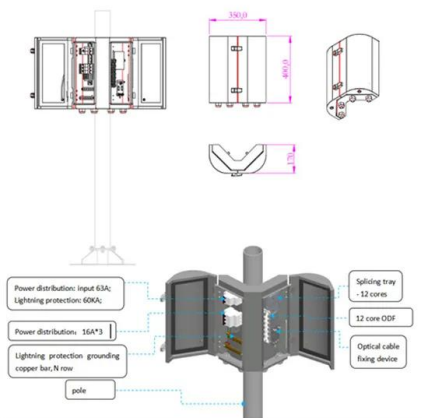


### Sodium Batteries Reach Industrial Explosion Point in ...

Sodium batteries are hitting their industrial explosion point in 2025! Discover the breakthroughs driving mass adoption in EVs, energy storage & beyond.

### Sodium-ion Batteries Market Global Report 2026-2036, with ...

The sodium-ion battery market is experiencing unprecedented momentum as industries worldwide seek sustainable, cost-effective alternatives to traditional lithium-ion ...



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

Bottom line: With CATL's Naxtra heading for mass production and more than 100 GWh of cumulative capacity now financed across three continents, sodium-ion is no longer ...

### Is Sodium-Ion the Next Big Battery?

In the weird, wide world of energy storage, lithium-ion batteries may appear to be an unshakably dominant technology. Costs have

declined about 97% over the past three decades, grid-scale battery storage is forecast ...



## Technology Strategy Assessment

About Storage Innovations 2030 This technology strategy assessment on sodium batteries, released as part of the Long-Duration Storage Shot, contains the findings from the Storage ...

## Sodium-ion Energy Storage Battery Market Report 2026-2033

The future outlook for the sodium-ion battery market is positive, with the increasing adoption of renewable energy sources driving demand for cost-effective, reliable ...



## Techno-economics Analysis on Sodium-Ion Batteries: Overview ...

Sodium-ion batteries are considered compelling electrochemical energy storage systems considering its abundant resources, high cost-effectiveness, and high safety. ...

## Top 18 Sodium-Ion Battery Manufacturers 2024: CATL, Northvolt, ...

Comprehensive analysis of global sodium-ion battery producers: \$30B market data, 160+ Wh/kg technologies, gigafactory maps, and procurement strategies for commercial buyers.

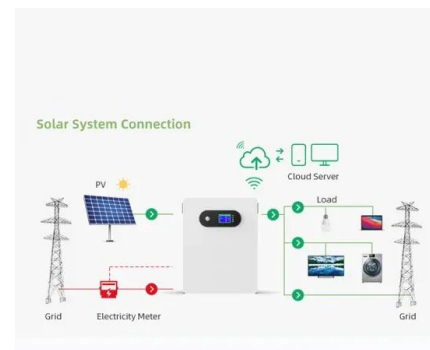


## Trends in electric vehicle batteries - Global EV ...

Further declines in battery cost and critical mineral reliance might come from sodium-ion batteries, which can be produced using similar production lines to those used for lithium-ion batteries.

## Techno-economics Analysis on Sodium-Ion Batteries

Abstract Sodium-ion batteries are considered compelling electrochemical energy storage systems considering its abundant resources, high cost-effectiveness, and high safety.



## Hungary Sodium Ion Battery Market (2024-2030) , Trends, Value, ...

Market Forecast By Type (Sodium-Sulphur Battery, Sodium-Salt Battery, Sodium-Air Battery), By Application (Stationary Energy Storage, Transportation) And Competitive Landscape

## National Battery Industry Strategy 2030

The mapping of Hungary's lithium assets and the establishment of responsible lithium extraction with low greenhouse gas emissions can play a key role in strengthening Hungary's battery ...



## Top 6 Sodium-Ion Battery Companies [2024]

The global shift towards clean energy and sustainable solutions has led to significant advancements in battery technology. Among these, sodium-ion batteries have emerged as a promising alternative to traditional lithium-ion ...

## Sodium-ion Batteries Market Global Report 2026-2036,

Comprehensive cost breakdown comparing sodium-ion to lithium-ion battery production  
Material cost analysis with price forecasts for 2023-2025 period Manufacturing ...



## Cost Projections for Utility-Scale Battery Storage: 2021 ...

Executive Summary In this work we describe the development of cost and performance projections for utility-scale lithium-ion battery systems, with a focus on 4-hour duration ...

## How does the cost of sodium-ion batteries compare to lithium-ion

The cost of sodium-ion batteries compared to lithium-ion batteries shows significant advantages in several real-world applications. Here's a breakdown of their cost ...



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

The sodium-ion battery market is experiencing unprecedented momentum as industries worldwide seek sustainable, cost-effective alternatives to traditional lithium-ion ...

## World's Largest Sodium-ion Battery Energy Storage ...

By 2025, sodium-ion batteries adopting the technological path of layered oxide will likely cost 83 percent of lithium iron phosphate batteries, the general manager of Chinese new energy and battery giant BYD's energy ...



- LIQUID/AIR COOLING
- ON GRID/HYBRID
- PROTECTION IP54/IP55
- BATTERY /6000 CYCLES



## 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.

## A cost and resource analysis of sodium-ion batteries

Himax Electronics is dedicated to advancing sodium-ion battery technology to make it more efficient, cost-effective and sustainable. For those looking to realize the full potential of sodium-ion batteries or explore innovative ...



## Battery cost forecasting: a review of methods and ...

However, battery costs have fallen fast during the last years and an accurate prediction of their future development is vital for profound research in academia and sustainable decisions in industry. This article outlines the most ...

## Energy storage costs

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 ...



 TAX FREE    

### ENERGY STORAGE SYSTEM

**Product Model**  
HJ-ESS-215A(100KW/215KWh)  
HJ-ESS-115A(50KW 115KWh)

**Dimensions**  
1600\*1280\*2200mm  
1600\*1200\*2000mm

**Rated Battery Capacity**  
215KWH/115KWH

**Battery Cooling Method**  
Air Cooled/Liquid Cooled

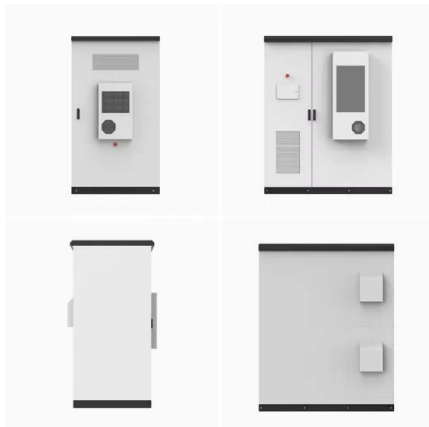


## What Does Green Energy Storage Cost in 2025?

In 2025, you're looking at an average cost of about \$152 per kilowatt-hour (kWh) for lithium-ion battery packs, which represents a 7% increase since 2021. Energy storage systems (ESS) for four-hour durations exceed \$300/kWh, marking the ...

## 2026 EV Battery Forecast: Why Prices Are Set to Drop 50%

Did you know EV battery prices are set to drop 50% by 2026? If you wonder how--the answer lies in innovations in technology and manufacturing.



## Sodium Batteries Reach Industrial Explosion Point in 2025!

Sodium batteries are hitting their industrial explosion point in 2025! Discover the breakthroughs driving mass adoption in EVs, energy storage & beyond.

## Sodium-Ion Batteries in 2026: Breaking Through Lithium's Price ...

The sustained high price of lithium carbonate has intensified cost pressures on downstream power battery and energy storage companies. At the same time, it has opened a market ...

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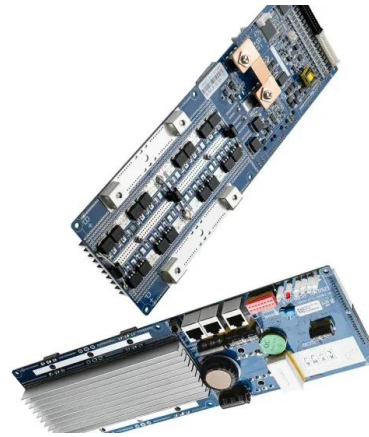


## NEXT GENERATION BATTERY TECHNOLOGIES FOR ...

As the share of renewable energy generation increases, the need for stationary energy storage systems to stabilize supply and demand is increased as well. Lithium-ion batteries have ...

## Top 10 Energy Storage Trends in 2023

An alternative to lithium-ion batteries, sodium-ion battery technology offers could alleviate battery-market pressures -- and potentially push down costs -- as soon as 2026.



## Electric vehicle battery prices are expected to fall ...

Our researchers forecast that average battery prices could fall towards \$80/kWh by 2026, amounting to a drop of almost 50% from 2023, a level at which battery electric vehicles would achieve ownership cost parity with ...

## Exclusive: sodium batteries to disrupt energy storage ...

With costs fast declining, sodium-ion batteries look set to dominate the future of long-duration energy storage, finds AI-based analysis that predicts technological breakthroughs based on global patent data.



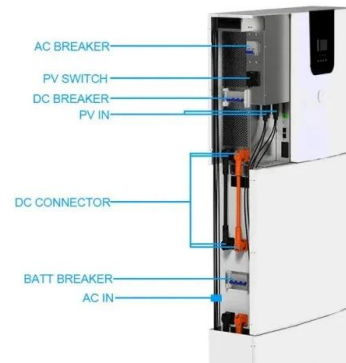
## EU expects battery pack price of less than \$100/kWh ...

That trend is expected to continue. In 2026/27, the average pack price is expected to fall below \$100/kWh, based on raw material costs, competition, and pressure from alternative technology such as Na-ion ...

## Sodium-ion Batteries Market Global Report 2026-2036, with

...

The sodium-ion battery market is experiencing unprecedented momentum as industries worldwide seek sustainable, cost-effective alternatives to traditional lithium-ion technology. This emerging



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