

## PIENAAR ENERGY (PTY) LTD

# Low-cost sodium-ion energy storage



 **TAX FREE**    

**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



**ENERGY STORAGE SYSTEM**



## Overview

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Sodium-ion batteries are emerging as a safer, lower-cost alternative to lithium-ion, with a recent international study highlighting their competitiveness in stationary energy storage. However, current NIB technology still falls short of established LIB systems, such as those based on  $\text{LiFePO}_4$ , in. The LENS Consortium aims to discover, develop, and demonstrate a new class of sodium-ion batteries that match, and aspire to surpass, the specific energy and energy density of current graphite/lithium-iron-phosphate batteries. Tina Casey Tell Us What You're Thinking! Support CleanTechnica's.

## Low-cost sodium-ion energy storage

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

### Sodium ion batteries: A sustainable alternative to lithium-ion

SIBs offer a technically feasible and increasingly promising alternative to LIBs for large-scale, cost-sensitive energy storage applications, mainly due to the abundance and even ...

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### Sodium-ion batteries now competitive in niche markets

Sodium-ion batteries are emerging as a safer, lower-cost alternative to lithium-ion, with a recent international study highlighting their competitiveness in stationary energy storage. The ...



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### High-abundance and low-cost anodes for sodium-ion batteries

Nowadays, sodium-ion batteries are considered the most promising large-scale energy storage systems (EESs) due to the low cost and wide distribution of sodium sources as well as the similar working ...

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## Researchers Improve Sodium-Ion Batteries 4X

Researchers are developing new materials to improve the performance of sodium-ion batteries for stationary energy storage and EVs, too.



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## Sodium-Ion Batteries Now Competitive in Niche Energy Storage ...

Sodium-ion batteries represent a promising and sustainable alternative to Lithium-ion batteries in today's energy storage sector. As the world anticipates lithium demand exceeding supply ...

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## Sodium-ion technology: the future of energy storage

Low-cost SIB (sodium ion battery) with a focus on material selection and process optimization in terms of competitive costs. Sustainable SIB with the aim of achieving the most sustainable value chain ...



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## Sodium-ion batteries: 10 Breakthrough Technologies 2026



Storing clean energy generated by solar and wind has long been a challenge. Sodium-ion batteries, with their low cost, enhanced thermal stability, and long cycle life, are an attractive

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## Next-generation anodes for high-energy and low-cost sodium-ion ...

Abstract Sodium-ion batteries (NIBs) are increasingly becoming commercially viable alternatives to lithium-ion batteries (LIBs), driven by sodium's lower cost and greater resource availability.



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## Low-cost Earth-abundant Na-ion Storage (LENS) Consortium

These NIBs will be designed to match or surpass the specific energy and energy density of current graphite/lithium iron phosphate (LFP) batteries, while also having a long life and low cost. ...

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## Scientists design low-cost sodium-ion battery with cheap electrode

Scientists design low-cost sodium-ion battery with cheap electrode materials  
Conceived for stationary energy storage, the proposed sodium-ion battery configuration relies on an P2-type ...

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