

SolarTech Power Solutions

Sodium battery energy storage cost per kilowatt-hour



Overview

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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.

Sodium-ion batteries are set to disrupt the long-duration energy storage (LDES) market within the next few years. According to new research by GetFocus, an AI-based analysis platform, sodium-ion batteries are improving rapidly. These batteries will offer cost competitiveness with the cheapest forms.

CATL's announced sodium-ion battery pricing of \$19 per kilowatt hour represents a 65% reduction from current lithium iron phosphate costs of \$55-\$70/kWh, not the 90% cost decline claimed across social media channels promoting the technology. The Chinese battery manufacturer's Nextra sodium-ion.

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.

This breakthrough immediately provides a safer, cheaper, and more sustainable alternative to lithium-ion for grid-scale applications, directly addressing the biggest bottleneck for integrating intermittent solar and wind power. The core finding is that the new chemistry slashes battery production.

Sodium battery energy storage systems are primarily influenced by three

crucial factors: the cost of raw materials, production technology, and market demand. 2. The average price of sodium-ion batteries currently ranges between \$100 to \$300 per kilowatt-hour, depending on various technological and.

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