

# SODIUM-ION ENERGY STORAGE INVESTMENT



Why is sodium ion a good choice for energy storage? Peter Carlsson concludes: "Our sodium-ion technology delivers the performance required to enable energy storage with longer duration than alternative battery chemistries, at a lower cost, thereby opening new pathways to deploying renewable power generation."



Is sodium ion the future of battery storage? Utility-scale storage powered by sodium-ion is the answer to securing this future on a resilient, decarbonized grid." Sodium-ion is a stable and proven battery chemistry that offers advantages in cost, supply chain security, scale, and safety over lithium-ion, the industry's current default battery storage choice.



Will sodium-ion technology help save energy? With a clear opportunity to ensure affordable energy, Peak Energy is moving fast to industrialize sodium-ion technology with a goal of lowering energy storage costs by up to 50%. "Sodium-ion is the key to unlocking the potential of renewable energy and will finally enable power providers to fully decarbonize the grid," said CEO Landon Mossburg.



When will peak energy start deploying sodium ion systems? Beginning in 2025, Peak Energy will start deploying its sodium-ion systems while simultaneously building a domestic, giga-scale battery factory that is scheduled to begin operations in 2026.



When will peak energy launch a large-scale sodium-ion storage system? Purchase Licensing Rights U.S. company Peak Energy is developing large-scale sodium-ion storage and is looking to deliver its first pilot systems in 2025 to six U.S. customers that include three of the top five largest Independent Power Producers (IPPs). The company plans to scale up production in the following year and reach full scale in 2027.

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What is the sodium ion battery market? Sodium ion batteries have emerged as a promising contender in this landscape, offering a compelling alternative to conventional lithium-ion batteries. This market overview explores the key trends, drivers, challenges, and opportunities that will shape the Sodium Ion Battery Market over the next decade. Market Scope: Market Dynamics:



Sodium-ion batteries (NIBs) are emerging as a pivotal technology in the ever-evolving energy landscape, reflecting a broader shift towards sustainable, efficient, and cost-effective energy storage solutions. New and innovative battery tech is becoming increasingly crucial as global energy demand increases, especially for EVs, renewable energy



Northvolt has once again been at the forefront of battery technology, pioneering a revolutionary Sodium-ion Battery powered by seawater. This cutting-edge development not only signifies a leap towards more sustainable energy storage solutions but also showcases the company's commitment to innovation and environmental stewardship.



Northvolt and Altris Sodium Batteries have marked a significant milestone in the battery industry. Northvolt, a Swedish battery manufacturer, in collaboration with Altris, has successfully developed sodium-ion batteries with an energy density of 160 Wh/kg.. Advancements in Sodium-ion Battery Technology. Northvolt's remarkable achievement in the Sodium-ion ???



Natron Energy, a pioneer in Sodium-ion Battery technology, has officially commenced commercial-scale operations at its state-of-the-art facility in Holland, Michigan. Sodium-ion batteries offer several advantages over traditional Lithium-ion batteries. They boast higher power density, more charge cycles, and enhanced safety.

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The plot of land readied for Natron Energy's sodium-ion production facility. Image: Natron Energy / Business Wire. US firm Natron Energy has announced plans for a sodium-ion gigafactory in North Carolina, while two Chinese firms have firmed up their projects, all-in-all totalling over 30GWh of annual sodium-ion production capacity.



Peak Energy raises \$55M Series A to commercialize sodium-ion battery technology and launches pilot program with key customers for delivery of first systems in 2025. DENVER and SAN FRANCISCO, July



Natron Energy has reached a significant milestone with the commercial production of sodium-ion batteries. Sodium-ion technology, poised to complement the existing energy storage market, offers an efficient and cost-effective alternative to traditional Lithium-ion batteries.. Natron Energy Leads the Charge



Sodium-ion battery technology could be the "perfect solution for applications where energy density is not paramount," according to the chief executive of battery tech company BMZ Group.

Germany-headquartered BMZ Group this week launched a range of sodium-ion (Na-ion) battery products, branded the NaTE SERIES.



This investment is supported by a Job Development Investment Grant (JDIG) and potential additional funding from the North Carolina Megasite Readiness Program. and reliable sodium-ion battery energy storage." This facility will support various sectors, including data centers, electric vehicle fast charging, microgrids, and

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Natron to invest nearly \$1.4 billion in the facility, supported in part by a North Carolina Job Development Investment Grant (JDIG), creating more than 1,000 high-quality local jobs and growing



When it comes to investing in the field of energy storage, sodium ion batteries are a topic that shouldn't be overlooked. These innovative batteries are gaining popularity for several compelling reasons: This surge in investment interest presents an opportunity to participate in a rapidly growing sector with substantial long-term potential.



Dislodging lithium ion. Investors seem fascinated by energy storage this year, the long-duration variety in particular. Within the last few months, we've seen these energy storage investments. Eos Energy Storage with its four- to six-hour duration zinc battery chemistry announced its intention to go public via a SPAC. Eos has spent over \$160



North Carolina's Bold Investment in Sodium-Ion Batteries; \$1.4 billion Sodium-Ion Battery Plant Brings Jobs to North Carolina; Sodium Ion Batteries: A New Path in Energy Solutions Ltd is a Chinese company focused on the development and production of a new generation of energy storage systems: sodium-ion batteries. The company recently



Sodium-ion batteries often have a lower energy density in the range of 100-150 Wh/kg when compared to lithium-ion green bonds, and specialized energy storage investment funds. To increase the economic viability of LDES projects, policy instruments like ITCs, which have effectively sparked growth in the solar and wind sectors, might be

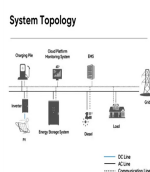
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Sodium-ion batteries are applicable for a versatile array of energy storage applications as they are less expensive, safer, and can operate over a wide temperature range. Since its inception, UNIGRID has positioned itself as a sodium-ion innovator and a technology frontrunner, developing cells with energy densities that exceed lithium iron



The energy density for sodium-ion batteries is still lower than high-energy lithium-ion cells, which use nickel, but they are approaching the energy density of high-power lithium iron phosphate



"Their sodium-ion technology offers a transformational solution for energy storage, setting the stage for a more sustainable and secure energy future." "With TDK Ventures" investment and support, Peak Energy is taking a major step towards our goal of building a scalable, resilient and domestically produced battery storage solution



In a groundbreaking shift, SNE Research forecasts China's sodium-ion batteries to enter mass production by 2025, targeting two-wheelers, small EVs, and energy storage. By 2035, their cost is expected to undercut lithium iron phosphate batteries by 11% to 24%, creating a colossal \$14 billion annual market. Characterized by lower energy density but higher ???



North Carolina's Bold Investment in Sodium-Ion Batteries; \$1.4 billion Sodium-Ion Battery Plant Brings Jobs to North Carolina; Sodium Ion Batteries: A New Path in Energy Solutions They might eventually replace lithium in numerous applications, from personal electronics to large-scale energy storage. In conclusion, sodium-ion batteries

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Aqueous sodium-ion batteries are practically promising for large-scale energy storage, however energy density and lifespan are limited by water decomposition. Current methods to boost water



SANTA CLARA, Calif., August 15, 2024--Natron Energy, Inc. ("Natron" or "the Company"), a global leader in sodium-ion battery technology, today announced plans to build the first sodium-ion battery



"The challenge for sodium-ion has always been the energy density and cycle life compared with lithium-ion. We don't need huge energy density for energy storage applications, but I was worried about the cycle life question for a while," he said. "For a while 5,000 cycles was best-in class for sodium-ion, whereas LFP is already close to



Battery stocks haven't fared well for much of 2024, but a big rally has put them back in the spotlight. The Global X Lithium & Battery Tech ETF (ticker: LIT) gained more than 20% in September. The



The Natron factory in Michigan, which formerly hosted lithium-ion production lines. Image: Businesswire. Natron Energy has started commercial-scale operations at its sodium-ion battery manufacturing plant in Michigan, US, and elaborated on how its technology compares to lithium-ion in answers provided to Energy-Storage.news.. At full capacity the facility will ???

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Sodium-Ion Batteries: A New Frontier in Energy Storage. Sodium-ion batteries have captured the spotlight due to recent advancements. The focus on sodium-ion technology is growing rapidly with major companies like BYD investing heavily. They are constructing a 30 GWh Sodium-ion Battery gigafactory. Meanwhile, companies such as Sodian Energy and TAILG are ???



Geopolitical, economic, and technical factors have converged to place the United States at the center of the energy-storage universe with a projected need for over 600GWh of energy storage by 2030