

Sodium-nickel battery energy storage prospects





Overview

What is a Technology Strategy assessment on sodium batteries?

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

Are sodium batteries a good choice for energy storage?

Much of the attraction to sodium (Na) batteries as candidates for large-scale energy storage stems from the fact that as the sixth most abundant element in the Earth's crust and the fourth most abundant element in the ocean, it is an inexpensive and globally accessible commodity.

Are high-temperature sodium-based batteries sustainable?

Sodium is one of the most promising elements and systems based on high temperature salts, which are being re-evaluated. In this scenario, high-temperature sodium-based batteries, such as sodium-nickel chloride (Na-NiCl₂), arise as a sustainable technology based on abundant and non-critical raw materials (non-CRMs).

Who makes sodium-nickel-chloride batteries in 2022?

In 2022, the only remaining producer of commercial sodium-nickel-chloride batteries is the Swiss company FzSoNick. Their batteries are primarily used as backup power sources for telecommunication antennas but have a high potential for the large-scale grid storage required for the implementation of renewable energy production. 1. INTRODUCTION



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What are the future prospects of sodium nickel materials?

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From lab to market with sustainable sodium-ion batteries

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