

Energy storage on the power generation side in Costa Rica





Overview

How is Costa Rica transforming its energy portfolio?

Costa Rica is taking bold steps to diversify its energy portfolio. The country is integrating wind, solar, and geothermal solutions to strengthen its power grid. These efforts aim to reduce reliance on any single source and ensure long-term sustainability.

Can solar power diversify the energy mix in Costa Rica?

While hydroelectric power dominates the energy mix at approximately 80% of electricity production, solar energy, though currently a smaller contributor, holds significant potential to diversify and stabilize the grid. This paper investigates Costa Rica's renewable energy journey, emphasizing solar power's evolving role.

How can Costa Rica improve its energy resilience & environmental stewardship?

By sustaining and building on these trends, particularly through diversified sources like solar and possibly nuclear, Costa Rica can enhance its energy resilience and environmental stewardship. Costa Rica's electricity mix includes 76% Hydropower, 11% Wind and 11% Geothermal. Low-carbon generation reached a record high in 2025.

How much energy does Costa Rica need?

Supply all required energy across all sectors, including the increased electricity demand for electric vehicles. Only 6% of Costa Rica's solar power potential (approx. 196 GW) and 25% of its wind power potential (approx. 15 GW) would suffice to achieve 100%RE. Both energy resources are primarily concentra



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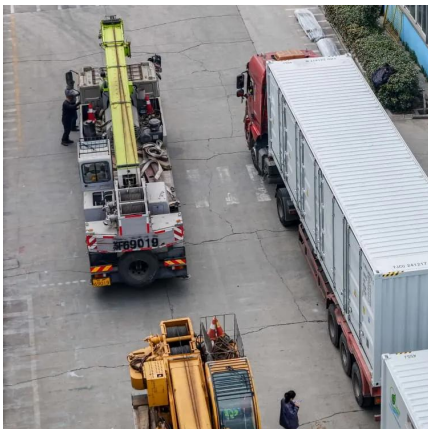


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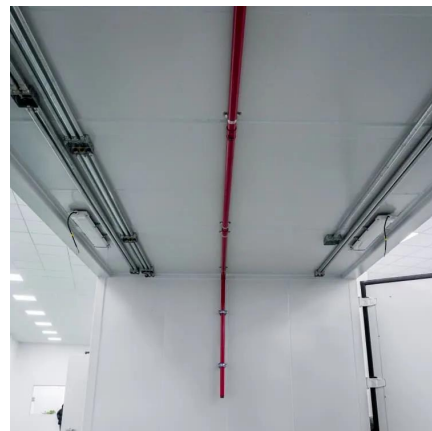
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