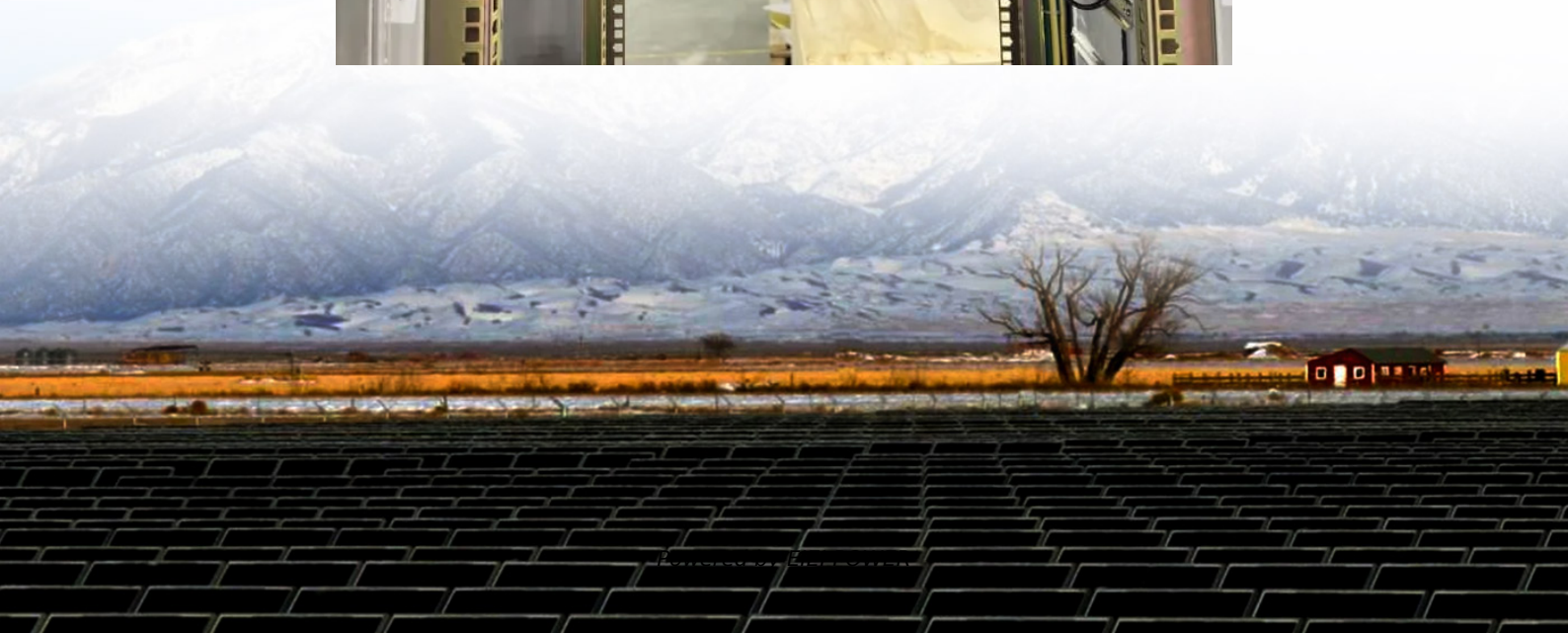


Colombia exports to large-scale energy storage





Overview

The rapid expansion of renewable energy technologies in the electricity sector introduces new significant challenges for power systems due to their high intermittency. Therefore, more flexibility is needed.

How much electricity does Colombia produce?

Colombia's installed electric power generation capacity currently stands at 17,771 MW, with hydro accounting for 68 percent, gas and coal-fired power plants accounting for 31 percent, and the remaining one percent from wind and solar units. The country's energy matrix is clean but highly dependent on climatic conditions to generate hydro power.

How has the energy sector changed in Colombia?

Multiple political and socioeconomic transformations have caused rapid changes in the energy sector in Colombia during the last decades [15]. Between 1975 and 2014, the total primary energy supply (TPES) increased from 197.5 to 472 TWh, representing an average annual growth rate of 2.3% [21, 22].

How can renewables help improve Colombia's energy access?

Extensive renewables potential in the La Guajira region should help advance rural electrification and close the energy access gap. Concentrated in the northern regions, which has a 50 gigawatt (GW) offshore wind potential, renewables can also provide the clean energy needed to jump-start Colombia's hydrogen production.

What percentage of Colombia's energy is renewable?

In 2021, renewable energy accounted for 25% of Colombia's total energy supply and for 29% of final consumption, substantially above the IEA average of 14% and made up 75% of electricity generation (compared to the IEA average of 30%).



Colombia exports to large-scale energy storage



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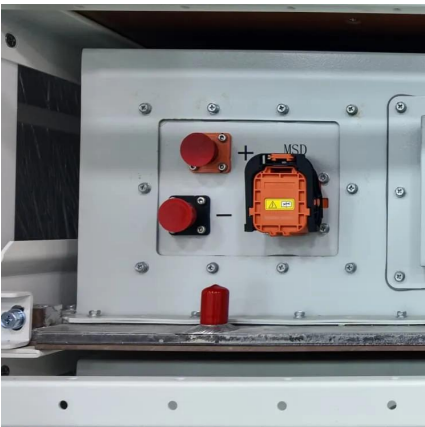
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