

Chile s energy storage system is used for nighttime charging





Overview

One of the key functions of the BESS is its ability to store energy during periods of high solar generation—typically during the day—and re-inject it into the grid during peak demand hours, usually in the evening. Is Chile ready for a standalone energy storage project?

This project alone nears the capacity (13GWh) the Chilean Ministry of Energy sought in a public land bidding auction for standalone energy storage projects in May of 2024. Chile has been one of the countries at the forefront of the renewable energy transition in Latin America, first with solar PV and now with BESS.

Why is energy storage important in Chile?

Image: Greenergy Grid constraints have prevented Chile from maximising the potential of its world-class solar resources. Energy storage has, therefore, become a necessity to ensure the financial viability of PV projects, writes Jonathan Tourino Jacobo.

Where are Chile's battery energy storage facilities located?

Chile's first battery energy storage projects were commissioned in 2009, and all but two of its 16 administrative regions have facilities in operation, under construction or in the planning stage. The greatest installed capacity is found in the northern regions of Antofagasta and Tarapacá, the country's solar powerhouses.

Does Chile need a nighttime electricity supply?

"Mining represents roughly 60% of the total energy consumption [in Chile]. Out of roughly 12GW, nearly 7-8GW comes from mining, all of which need to be supplied 24/7. There's a lot of space [to supply with batteries]," explains McDonough. Rojas outlined the urgent need to decarbonise the nighttime electricity supply in Chile.

Should Chile decarbonise the nighttime electricity supply?



Rojas outlined the urgent need to decarbonise the nighttime electricity supply in Chile. In 2023, only 19% of renewable energy was used at night and 25% during peak hours – from 7pm to midnight – while the daytime sat at around 56% on average.

How many energy storage projects are in Chile?

According to a December 2023 publication on the InvestChile website, the country had 23 approved energy storage projects with a total of 3,000 MW of capacity. Chile is exploring a variety of solutions to keep abreast of the changing energy demand landscape ranging from BESS to innovative projects using CO₂.



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Energy Storage Systems for Ancillary Services Provision in ...

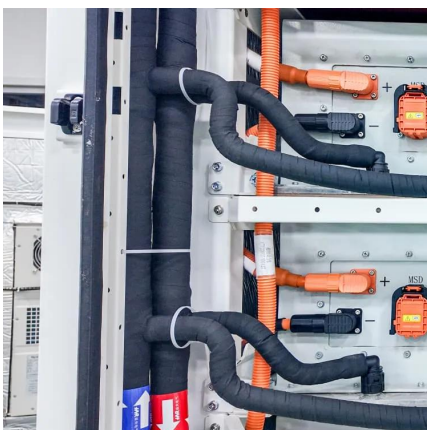
The scope will be bounded in the electrochemical kind of Energy Storage and, as consequence of their high cost in CAPEX and fast degradation, the service studied will be frequency regulation ...

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Chile: BESS as an answer to solar curtailment, grid constraints

Rojas outlined the urgent need to decarbonise the nighttime electricity supply in Chile. In 2023, only 19% of renewable energy was used at night and 25% during peak hours - ...

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Chile Leads Latin America with the Largest Battery Energy Storage System

One of the key functions of the BESS is its ability to store energy during periods of high solar generation--typically during the day--and re-inject it into the grid during peak demand hours, ...

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Energy storage is a challenge and an opportunity for Chile

Chile's first battery energy storage projects were commissioned in 2009, and all but two of its 16 administrative regions have facilities in operation, under construction or in the ...

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BESS: Chile's renewable energy game-changer , USA Solar Cell

Chile is making significant strides in harnessing its abundant solar energy potential, yet it faces critical challenges such as solar curtailment and grid constraints. These ...

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Chile Leads Latin America with the Largest Battery Energy ...

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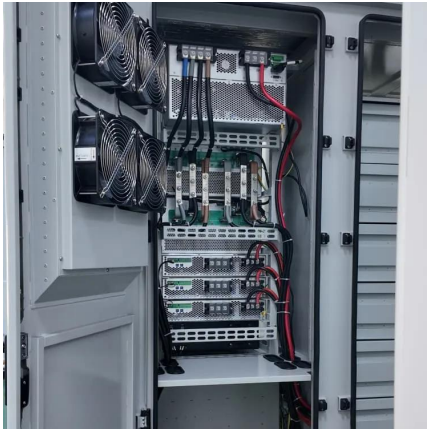
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[Chile moves on storage to 'decarbonize the night'](#)

Chile moves on storage to 'decarbonize the night' Image: Engie Chile From ESS News Solar and energy storage deployment is booming in Chile, spurred on by supportive government policy ...

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