## How many energy storage projects are in Chile?

Currently,36of the 129 large-scale projects Latin America projects with an energy storage component under development are in Chile,including 32 out of 71 of the region's early works projects. The storage technologies either in use or being considered include:

How much battery storage capacity does Chile have?

According to data from Acera, the Chilean Renewable Energy Association, there are only 64MWof battery storage capacity currently active, representing 0.2% of national capacity. AES Andes, a subsidiary of U.S. company AES Corp. operates all 64MW at their Angamos and Los Andes substations.

How long does a battery last in Chile?

Moreover, the lack of an ancillary services market in Chile discourages shorter duration batteries (1-2 hours) as seen in the US and Europe. The general industry consensus is to maximize the availability of the battery and focus on 2-3 revenue streams instead of 4 to 5 (e.g., energy arbitrage, capacity payment, and frequency reserve).

How often does Chile develop a long-term energy plan?

According to the Law of Electrical Services, modified by Law N° 20.936, every five years the Chilean Ministry of Energy will have to develop a long-term energy plan for different energy scenarios that include expansion of generation and energy demand, in a horizon of at least thirty years (Ministerio de Energía,2017).

Are battery energy storage systems a viable alternative for Chilean power producers?

With transmission lines at overcapacity and permitting delays slowing the development of new grid infrastructure, battery energy storage systems (BESS) have surged as a profitable alternative for Chilean power producers.

What kind of energy does Chile use?

Chile has the potential to run exclusively on renewable generation, with an estimated energy mix of 46% solar, 31% wind, 12% hydroelectric, and 8% flexible natural gas power plants, as well as 23% of battery storage

## CHILE ENERGY STORAGE DURATION



capacity. The remaining 2% is split between biomass, geothermal, and other less common energy sources.



The confluence of market structure changes, decarbonization goals, high solar energy penetration and transmission constraints is creating ideal conditions for an energy storage boom in Northern Chile.

Overall, Chile has been taking various steps to strengthen the electricity sector, with an aim to have a more detailed path towards its decarbonisation plans. Timely implementation of these initiatives will help the country maintain a smoother energy transition.

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## CHILE ENERGY STORAGE DURATION





The initiative aims to accelerate the transition to a 100% renewable electricity system in Chile by addressing the technical, economic, and regulatory challenges of long duration storage technologies.

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According to estimates of the national electric system of Chile (SEN) cited by Americas Market Intelligence, the country will have 13.2 GWh/ 2 GW (6???8-hour duration) of operating energy storage by 2026. The northern regions of Antofagasta and Atacama account for nearly 5GW of the BESS pipeline.

## CHILE ENERGY STORAGE DURATION





Though it has made progress, experts still point to the need for regulation and to continue improving conditions for the uptake of capital-intensive energy storage technology. "It's likely that, within five years, we will have 3 GW energy storage capacity in Chile," says Sauma.