

# **Ecuadorian power grid energy storage power station**





## Overview

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How much electricity does Ecuador need?

Ecuador had a peak demand of 5,110 MW in May 2025, and according to CENACE, electricity demand grows by 360 MW every year. Ecuador's energy shortage could result in a recurrence of power outages, particularly in the dry season of September through December.

When will Ecuador start constructing a solar power plant?

In 2023, the Energy Ministry released tenders for a 500 MW renewable block (wind, biomass, solar), 400 MW Natural Gas Combined Cycle Power Plant (CCCP), and a Northeast Transmission System to supply the Ecuadorian oil system. From these tenders, only the Villonaco project has started construction as of August 2025.

Where does Ecuador's electricity come from?

Ecuador's state-owned electricity company, CELEC EP, imports electricity from neighboring Colombia. CELEC is also increasing diesel purchases from Petroecuador to power its thermal electric power plants. Ecuador had a peak demand of 5,110 MW in May 2025, and according to CENACE, electricity demand grows by 360 MW every year.

What type of energy does Ecuador use?

Ecuador's renewable energy is comprised of hydro power (5,419 MW), biomass (1550 MW), wind (71 MW), photovoltaic (29 MW), and biogas (11 MW). Hydroelectric power plants are in three regions: coastal (2 provinces), Andes (9 provinces), and Amazon (4 provinces).



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Ecuador

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(PDF) Examining the Evolution of Energy Storing in the Ecuadorian

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