

SolarTech Power Solutions

Argentina grid-side energy storage peak-valley arbitrage project



Overview

In the context of global decarbonisation, retrofitting existing coal-fired power plants (CFPPs) is an essential pathway to achieving sustainable transition of power systems. This paper explores the potential.

Can battery energy storage modernize the grid in Argentina?

The Argentina's ambitious push toward grid modernization through battery energy storage has received an enthusiastic response, with CAMMESA (Compañía Administradora del Mercado Mayorista Eléctrico) confirming the submission of 27 project proposals from 15 companies under its AlmaGBA program.

What is Peak-Valley arbitrage?

The peak-valley arbitrage is the main profit mode of distributed energy storage system at the user side (Zhao et al., 2022). The peak-valley price ratio adopted in domestic and foreign time-of-use electricity price is mostly 3–6 times, and even reach 8–10 times in emergency cases.

What is energy arbitrage?

Energy arbitrage means that ESSs charge electricity during valley hours and discharge it during peak hours, thus making profits via the peak-valley electricity tariff gap [14]. Zafirakis et al. [15] explored the arbitrage value of long-term ESSs in various electricity markets.

How many MW of battery energy storage will be deployed in Buenos Aires?

The initiative aims to deploy 500 MW of battery energy storage systems (BESS) in the Greater Buenos Aires Area (GBA), but the submitted capacity has far exceeded expectations—reaching a combined 1,347 MW.

Will Argentina integrate new electricity storage infrastructure into urban distribution networks?

This national and international open call, part of Resolution SE 67/2025, marks Argentina's first large-scale effort to integrate new electricity storage

infrastructure into urban distribution networks.

Is a retrofitted energy storage system profitable for Energy Arbitrage?

Optimising the initial state of charge factor improves arbitrage profitability by 16 %. The retrofitting scheme is profitable when the peak-valley tariff gap is >114 USD/MWh. The retrofitted energy storage system is more cost-effective than batteries for energy arbitrage.

Argentina grid-side energy storage peak-valley arbitrage project

Contact Us

For catalog requests, pricing, or partnerships, please visit:
<https://www.zegrzynek.pl>