

#### **SolarTech Power Solutions**

### Distributed Energy Storage in Brazil





#### **Overview**

This document outlines strategic guidelines for distributed generation and battery storage behind the meter, highlighting how Brazil intends to advance its energy sector to accommodate future demands and technological advancements. Will Brazil install a battery energy storage system in 2024?

A study by Brazilian consultancy Greener has indicated that the country installed 269 MWh of energy storage capacity in 2024, growth of 29% from 2023. Demand for battery energy storage system (BESS) components grew 89% in Brazil from 2023 to 2024 and most of the resulting systems are likely to be installed in 2025.

What is driving Brazilian energy storage demand?

An unreliable grid is driving Brazilian energy storage demand. The world is set to have more than 760 GWh of energy storage capacity by 2030, led by Chinese and United States markets dominated by utility-scale systems.

Are battery storage systems viable in Brazil?

In Brazil, the cost of turn-key battery systems is notably high due to significant tax burdens. However, future projections indicate a potential reduction in battery costs, which could enhance economic feasibility for various applications. The booklet explores the viability of battery storage systems across different scenarios. For instance:.

Can dynamic distribution system operators help balancing Brazil's decarbonization goals?

Traditional distribution utilities must transition into dynamic distribution system operators (DSOs) to manage bidirectional power flows, integrate DERs and enhance grid resilience. This shift is critical to balancing Brazil's decarbonization goals with rising energy demand, which is projected to grow at 3.4% annually through 2034.

How big is Brazil's energy infrastructure?



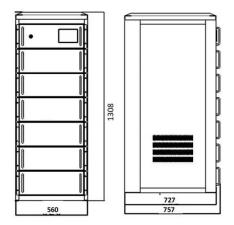
The transmission network now spans approximately 200,000 kilometers of lines operating at various voltage levels, with a compound annual growth rate of 4.8% between 2018 and 2023.24 This robust expansion highlights Brazil's exceptional capacity for energy infrastructure planning, particularly in overcoming challenging geographical conditions.

Can foreigners invest in battery storage businesses in Brazil?

Investment, incentives and taxation scenarios According to Brazilian law, there are no legal restrictions on direct foreign investment in the battery storage businesses or in the power sector (except in very specific segments or sectors of the economy).



#### **Distributed Energy Storage in Brazil**



# Electricity markets and regulatory developments for storage in Brazil

Jan 1, 2022 · Brazil is taking its first steps toward its ambitions of bringing storage into the energy transition of its electricity sector. The modernization of the electricity sector discussed under ...

## The role and benefits of storage systems in distributed solar ...

Aug 1, 2024 · In BESS simulations, PU power flows were utilized. The BESS defined operation (charging/discharging schedules) was aimed at the maximum use of the surplus PV energy ...





# The impact of distributed generation and energy storage on ...

Feb 13, 2025 · Brazil, with its vast solar potential and growing demand for sustainable energy, has the opportunity to follow a similar path, establishing itself as a global leader in the sector. ...



### Brazil's Distributed Generation Surges to 37 GW, ...

Mar 5, 2025 · Brazil's distributed generation (DG) capacity exceeds 37 GW, with 20% growth expected in 2025. This will drive BRL 25 billion in investments ...





## Spotlight on Brazil: A market ready for takeoff

Aug 6, 2025 · As the share of solar power in Brazil's electricity matrix grows on both transmission and distribution grids, so does the need for flexibility and management of non-simultaneous ...

## Spotlight on Brazil: A market ready for takeoff

Aug 6, 2025 · Simultaneously, solar energy storage could attract R\$44 billion (USD \$8.46 billion) in investments by 2030, according to a study by ABSAE. This volume would be distributed ...



#### 'Brazilian solar arrays will





### include energy storage by 2027'

Dec 3, 2024 · Solar-plus-storage hybrid systems will enter the Brazilian consumer market within two to three years, according to Júlio Bortolini, photovoltaic unit manager at Brazilian ...

# Battery energy storage systems in Brazil: current regulatory ...

Brazilian law allows small-scale distributed generation projects (capacity not exceeding 3MW or 5MW depending on the technology) to be installed with storage systems, provided certain ...





## Brazil's Ten-Year Energy Expansion Plan 2034

Jun 25, 2024 · Conclusion The Second Booklet of the Ten-Year Energy Expansion Plan 2034 outlines Brazil's strategic direction in expanding its energy sector through distributed ...

### Distributed Generation Surpasses 37 GW in Brazil Amid ...



Mar 9, 2025 · Brazil has reached 37 GW of installed capacity in distributed generation (DG). The Brazilian Association of Distributed Generation (ABGD) projects a 20% growth in installed DG ...







# The impact of distributed generation and energy storage on ...

Brazil, with its vast solar potential and growing demand for sustainable energy, has the opportunity to follow a similar path, establishing itself as a global leader in the sector. ...

### Distributed energy resources market in Brazil

Jul 19, 2025 · Energy storage: Brazil's first battery energy storage system (BESS) auction is scheduled for June 2025. This aims to secure approximately 3 gigawatt hours (GWh) of ...



### Transitioning to Distribution System Operators in Brazil





May 19, 2025 · Traditional distribution utilities must transition into dynamic distribution system operators (DSOs) to manage bidirectional power flows, integrate DERs and enhance grid ...

### Brazil Distributed Energy Storage Systems Market Report

2 days ago · The Brazil distributed energy storage systems market is driven by the increasing integration of renewable energy, growing demand for grid stability, and supportive government ...





## The state of battery storage (BESS) in Latin ...

May 14, 2024 · Brazil's regulatory framework does not prohibit energy storage solutions, but there are currently no specific regulations on storage. At the end ...

### NEC and Distributed Energy Storage in



#### Brazil...California's ...

Jul 6, 2018 · NEC supplies distributed energy storage system for archipelago NEC Energy Solutions is supplying its first distributed energy storage system in Brazil for a research and ...





## Energy Storage Companies in Brazil: Key Players, Trends, and ...

Jun 25, 2022 · With solar capacity hitting 4GW+ in Q1 2025 alone [5], the country's energy storage sector is booming faster than a Carnival parade. This article dives into the top energy ...

# The impact of distributed generation and energy storage on ...

The future of the Brazilian electricity sector points to greater integration between distributed generation and energy storage. With continuous investments in storage technologies and the ...



#### **Matrix Energia enables**





#### storage-as-a-service for ...

Aug 28, 2024 · To unlock new business in battery energy storage, São Pauloheadquartered Matrix Energia is betting on a model that has been successful ...

## Assessing the economic viability of BESS in distributed PV ...

May 1, 2024 · Abstract This paper proposes a method to assess the financial attractiveness provided by adding a Battery Energy Storage System (BESS) in distributed photovoltaic (PV) ...





#### Power Generation, Transmission & Distribution 2025

Jul 17, 2025 · The current Brazilian power regulatory framework does not regulate the implementation and operation of battery energy storage systems, nor pumped-storage ...

## **Economic analysis of industrial energy storage**



#### systems in Brazil...

Mar 1, 2023 · Therefore, the proposed methodology is expected to be valuable in increasing the deployment of battery energy storage systems, providing a novel perspective of their ...





### Distributed Generation: Transforming the Future of Energy in Brazil

Dec 27, 2024 · The Brazilian energy matrix is undergoing a significant transformation, driven by the growing adoption of Distributed Generation (DG). This innovative model allows consumers

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