

Global PV Storage Insights

Expected ROI of BESS project in Spain 2025



Overview

How many Bess projects are there in Spain?

In March 2025, UK companies Renewco and Atlantica announced the development of up to 2.2GW of BESS projects across Spain. Other projects in the pipeline primarily involve storage co-located with solar or wind generation. According to BloombergNEF, the total capacity currently in the BESS pipeline is around 3GW.

Does Spain need a Bess energy system?

Currently, Spain has 6.3GW of hydroelectric and 1GW of thermal storage capacity installed. In fact, the non-BESS storage capacity in Spain is higher than in any other European country. As a result, the need for BESS to integrate renewable energy sources into the electricity system is less immediate than in the UK, for example.

How does Spain's pumped hydro energy storage compete with Bess?

Spain's pumped hydro energy storage competes directly against BESS, limiting the battery storage opportunity in wholesale markets. 3. Missing ancillary markets Unlike Great Britain or Texas, Spain never created ancillary service markets that net-zero systems need:.

What is the current situation of the Spanish Bess market?

The current situation of the Spanish BESS market confirms that both of these factors are required to gain market attraction: Despite a high penetration of renewable energy, the Spanish regulatory framework has been lagging and the first BESS projects of significant size have yet to be built.

How much energy storage will Spain have by 2030?

In its National Energy and Climate Plan (NECP), the Spanish government aims to have 22.5GW of energy storage by 2030 (see table 1). This amount of storage capacity will be needed to integrate the growing capacity of

intermittent generation.

Why is Bess less urgent in Spain?

Another reason the integration of BESS is less urgent in Spain is the high resilience of the Spanish grid, despite its low level of interconnection. The Spanish TSO operates a very solid matrix-design grid, which includes a system for technical restrictions centrally operated in the Renewable Energy Control Centre (CECRE).

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Top 5: Largest BESS Projects in the World in 2025

The second phase of the project was operationalized a year ago which brought its total energy storage capacity of the project to 530 MW / 2120 MWh, bringing it among the 5 largest BESS projects in the world, and third ...

Unlocking opportunity: Analysing Spain's battery storage ...

LCP Delta and Santander have combined their expertise to analyse the opportunity for investment in battery energy storage systems (BESS) in Spain. With a high ...



5 Reasons Why BESS Will Be a Focal Point of Energy ...

The global energy storage market is expected to add over 220 GWh of new capacity in 2025, driven by a rise in tenders for BESS projects, many of which may be commissioned this year. India's BESS market is also ...

Big opportunities for BESS in 2025

Phase one alone is expected to deliver annual consumer savings of £29-£32 million while continuing to decarbonise the power system. A pivotal year ahead for BESS The ...



Lithium Solar Generator: \$150



Update on Italian BESS investment case & MACSE ...

Italian BESS investors are now focusing on business models & MACSE bidding strategy 2025 is set to see the start of a surge in Italian storage asset investment, led by BESS. The catalyst for this is the implementation of ...

European Market Outlook for Battery Storage 2025-2029

The European Market Outlook for Battery Storage 2025-2029 analyses the state of battery energy storage systems (BESS) across Europe, based on data up to 2024 and ...



Technical and economic study of two energy storage

As expected, the higher the pool price, the higher the difference between buying and selling price. During most of the years, this difference is between 50 and 70 EUR/MWh for the BESS 2h, and 40 ...

The rise of bankable BESS projects in Europe

As the renewable energy sector rapidly evolves, battery energy storage systems (BESS) are emerging as a critical pillar for decarbonization. However, with capital constraints ...



Battery energy storage systems (BESS)

BESS projects can provide a reliable and cost-effective solution, but their full potential remains largely unexplored. To remedy this situation there is a need to focus significant effort on ...

US deployed 11.9GW of storage in 2024, 18.2GW ...

PV arrays at Gemini Solar + Storage. CATL provided the BESS containers and IHI Terrasun served as system integrator. The project was one of the largest to come online in the US last year. Image: Primergy. BESS ...



Introduction to Battery Energy Storage Markets: Spain and ...

Overview: Spain and Portugal use the same grid, the Iberian Grid, through the MIBEL agreement established in 2004. Policy Environment: Spain has updated its National ...

Storage batteries in Spain

Battery Energy Storage Systems (BESS) are one of the latest solutions for storing energy for later use. The batteries have a mechanism that allows energy to flow in both directions to charge and discharge the batteries. In this way, the battery is ...



How much does it cost to build a battery energy ...

How much does it cost to build a battery in 2024? Modo Energy's industry survey reveals key Capex, O& M, and connection cost benchmarks for BESS projects.

BESS and LDES in Spain: opportunities and ...

The country is generating (and committed to steady growth in the coming years) a significant portion of energy from renewables, makes the BESS role increasingly important in addressing generation intermittency and ...

INTEGRATED DESIGN
EASY TO TRANSPORT AND INSTALL,
FLEXIBLE DEPLOYMENT



Backup power for Europe

One of these projects, located in Blackhillock, Scotland, came online in March 2025 and is the world's first BESS project to provide stability services. In late 2024, three BESS projects ...

Backup power for Europe

In part 1 of our series on backup power in Europe, we named Italy as one of the most attractive European countries for BESS investments. The Italian electricity sector is ...



Spanish price forecast update: S1 2025 Insights for BESS

Thanks to advances in technology, BESS systems now offer longer operational lifetimes - meaning more time to generate revenues. CAPEX costs have also dropped significantly from ...

Unlocking Opportunity

LCP Delta and Santander have combined their expertise to provide this report into the opportunity for investment in battery energy storage systems (BESS) in Spain.



215kWh

8,000+ Cycles Lifetime

IP54 Protection Degree

Iberia: Why are there no batteries in Spain?

Until 2024, Spain had never experienced negative wholesale electricity prices. However, that is changing, and the number of negative price hours is growing faster than in France and ...

BESS profitability in Europe, including Denmark

Discover updated insights on BESS profitability in Europe with our latest Clean Horizon Storage Index, now featuring Denmark DK1 & DK2 in a clear, color-coded historical performance chart.



BW ESS, Ibersun to develop 2.2 GW of battery ...

Spain's National Integrated Energy and Climate Plan (PNIEC) has mandated 22.5 GW of energy storage capacity by 2030, a major step-up in commitments from current storage levels: in April 2025, Spain's installed BESS ...

European BESS Container Market Trends 2025: Data-Driven ...

12 ????· Discover 2025 European BESS Container Market Trends: 25.2 GWh projected installs, Germany/UK/Spain leading, EU's EUR2.1B incentives, and BESS containers powering ...

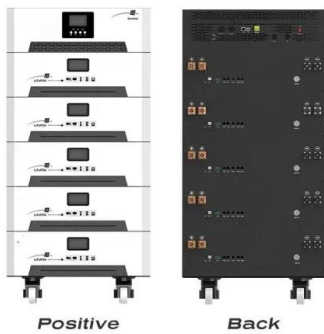


How Italy is Driving BESS Investment

The first auction in 2025 is expected to significantly boost BESS development. Policy Background The EU's energy and climate greenhouse emissions target requires EU countries to establish a 10-year integrated national energy and ...

How Spain's Real Decreto-Ley 7/2025 accelerates BESS projects

Here, we explain how the new Spanish legal framework, Real Decreto-Ley 7/2025, paves the way to accelerate battery energy storage system (BESS) projects by ...



Capacity Market 2024/25: Increased derating factors ...

Derating factors and target capacities for the 2025 Capacity Market have been announced, with good news for battery energy storage.

BESS in Germany 2025 and Beyond:

Energy storage is vital for integrating renewable energy, ensuring reliability of power supply, and reducing greenhouse gas emissions. BESS stands out for its affordability, driven by ...

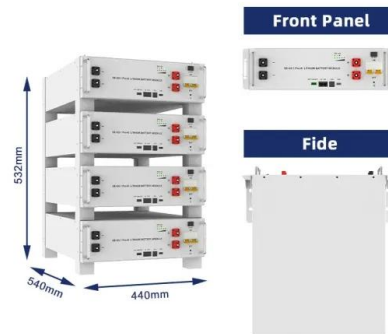


BESS Pros Survey: What Matters Most to BESS ...

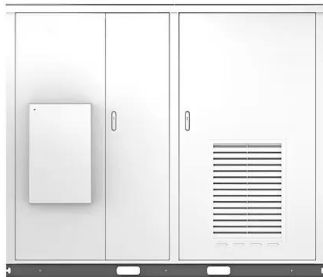
Executive Summary To gain insights into the most pressing concerns within the battery energy storage sector, we surveyed 83 engineers, technicians and asset managers for the "BESS ...

Spain & Italy , BESS Premium Opportunities in Renewables

Spain and Italy present a EUR45 million opportunity for BESS insurance premiums. Discover how NARDAC supports renewable energy projects in these regions.



Solar



Enabling renewable energy with battery energy ...

These developments are propelling the market for battery energy storage systems (BESS). Battery storage is an essential enabler of renewable-energy generation, helping alternatives make a steady contribution to the ...

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