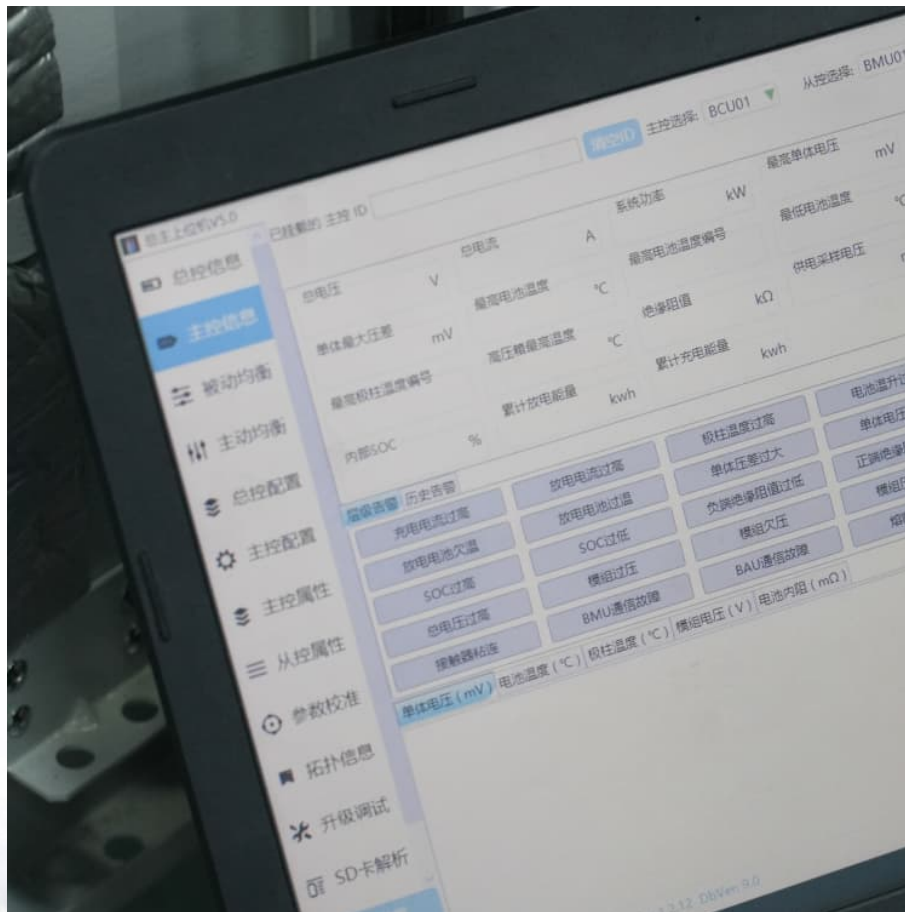


Expected ROI of large scale battery storage project in Spain 2030





Overview

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.

What is Spain's battery storage market?

Spain's battery storage market is dominated by customer-sited systems. Utility-scale storage remains nascent. Currently, Spain's storage market is mainly composed of small-scale batteries co-located with solar PV. Spain's household electricity prices now stand at over EUR 0.30/kWh on average.

Why do we need battery energy storage systems in Spain?

Due to the large capacity of installed hydroelectric and thermal storage systems and the resilience of the Spanish power grid, the need for Battery Energy Storage Systems (BESS) in Spain has been relatively low. The lack of a clear regulatory framework for BESS has also hindered its development in Spain so far.

What will Spain's energy plan look like in 2030?

By 2030, Spain expects to install 22.5 GW of energy storage projects, including included battery energy storage, pumped hydropower and solar thermal plants. The plan also aims for 76 GW of solar power, 62 GW of wind power, which includes 3 GW of offshore wind, along with 1.4 GW of biomass projects.

How much energy storage capacity does Spain have?

When it comes to installed energy storage capacity in general, Spain is one of the leading countries within Europe (see figure 2). 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.

Why are Spanish wholesale markets opening up a battery market?

Spanish wholesale markets have offered increasing revenues due to recent price volatility which rewards BESS through power trading. However, sustained investment in batteries will be supported by fully opening up markets.



Expected ROI of large scale battery storage project in Spain 2030

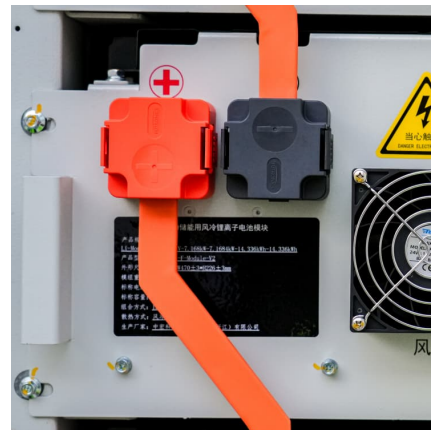


Storage batteries in Spain

According to BloombergNEF, sodium-ion batteries are expected to account for 23% of the stationary storage market by 2030 - exceeding 50 GWh, with the potential to grow further through technological advances and efficient ...

The Future of Battery Market in the Middle East & Africa

Across the region, governments and private sector players are investing in battery production, assembly, and integration to meet the needs of emerging energy ecosystems. In particular, ...



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 ...

[Key Projects, Initiatives and Market , JRC SES](#)

By 2030, the European battery storage market is expected to grow substantially, thanks to investments from the European Battery Alliance (EBA) and large-scale manufacturing facilities ...



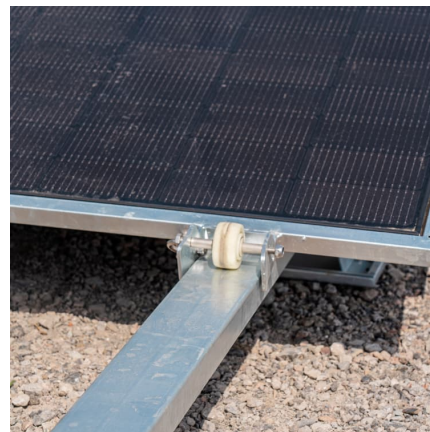
Spain Grid-scale Battery Storage Market Size & Outlook, 2030

This country databook contains high-level insights into Spain grid-scale battery storage market from 2018 to 2030, including revenue numbers, major trends, and company profiles.



[Spanish govt approves energy storage strategy, sees ...](#)

Storage that is currently available in Spain comes mainly from pumped hydro and concentrated solar power (CSP) plants, to which the government wants to add large-scale batteries, behind-the-metre batteries -- minimum 400 MW in 2030 - ...



[Energy storage market analysis in 14 European ...](#)

Volatile energy prices and the popularity of photovoltaic self-use have driven demand for residential energy storage, which is expected to continue to grow through 2030. In addition, Germany plans to hold its first capacity market ...





[eMobility report: Is Spain positioning itself as a ...](#)

PowerCo Spain has started the first works on the land intended for the construction of the Volkswagen battery gigafactory in Sagunto, Valencia. This plant will create 3,000 direct jobs and will receive an investment of more ...



Cost Projections for Utility-Scale Battery Storage: 2023 ...

Executive Summary In this work we describe the development of cost and performance projections for utility-scale lithium-ion battery systems, with a focus on 4-hour duration ...

Spain increases energy storage target in NECP to 22.5GW by 2030

By 2030 the country aims to have 76GW of solar PV, including 19GW of self-consumption. Renewable energy is expected to play a major role in Spain's electricity ...



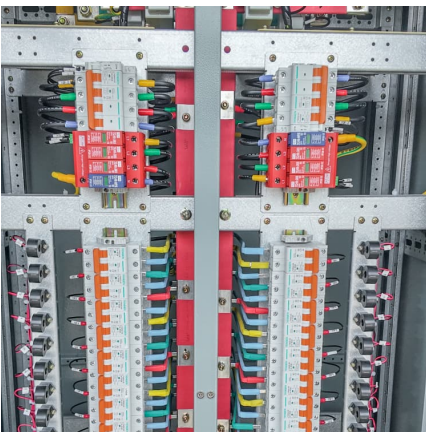
CAISO: The state of grid-scale battery energy storage ...

Which major battery projects are currently in testing and expected to reach commercial operation in 2025. How CAISO's Resource Adequacy market is shaping battery investment and financing decisions. To get full access to Modo ...



[Global Energy Storage Market Outlook](#)

Battery costs have fallen dramatically owing to scale and investment of automotive sector Note: Battery price is benchmark price for an LFP energy storage module in the United States Data ...



Spain targets 20GW of energy storage by 2030 as part of new ...

Spain's government has approved an energy storage strategy that it says will put the country "at the forefront" of what is being done in Europe and help it move towards its 2050 ...

Projects

The large-scale BATTERY 2030+ research initiative aims to invent the batteries of the future by providing breakthrough technologies to the European battery industry. This shall be done throughout the value chain and enable long-term ...





[The Economics of Battery Storage: Costs, Savings, ...](#)

For instance, a residential solar-plus-storage system might have a different ROI compared to a large-scale utility battery storage project. Impact of Incentives and Subsidies

[Spain's EUR700 Million Plan to Boost Energy Storage ...](#)

It targets large-scale energy storage projects in Spain. It focuses on technologies like standalone battery energy storage systems (BESS), pumped hydro energy storage (PHES), and thermal energy storage. The program ...



[Energy storage strategy in Spain 2030-2050. What ...](#)

Firstly, the plan provides a total storage capacity of 20GW in 2030 and 30GW in 2050, building on the 8.3GW of capacity available today. In both cases, both large-scale storage (solar thermal power plants) and ...

BW ESS and Ibersun sign joint venture to develop 2.2GW BESS in Spain

24 June 2025, MADRID -- Global energy storage owner-operator BW ESS and Getxo-based energy storage developer Ibersun have signed a joint venture to develop, in its first phase, ...



[eMobility report: Is Spain positioning itself as a ...](#)

It is estimated that by 2030, Spain's battery production capacity will range between 42 and 72 gigawatt-hours (GWh), which would place it as the sixth nation with the highest battery production capacity in the European Union ...

[Spain Targets 20GW of Energy Storage by 2030 As ...](#)

Spain's government has approved an energy storage strategy that it says will put the country "at the forefront" of what is being done in Europe and help it move towards its 2050 climate neutrality target.



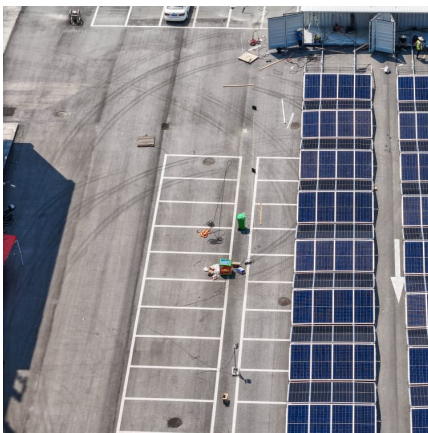
Utility-Scale Battery Storage , Electricity , 2024 , ATB , NREL

The battery storage technologies do not calculate levelized cost of energy (LCOE) or levelized cost of storage (LCOS) and so do not use financial assumptions. Therefore, all parameters are ...



[Spain Battery Market Set for \\$1.188M Growth by 2030](#)

Spain's battery industry is expected to grow to USD 1,188.2 million by 2030, supported by rising demand for energy storage and sustainable technology.



Report-Battery-energy-storage

In order to deploy renewables and to release their potential for ensuring a stable and secure energy supply, Europe needs to work to overcome the intrinsic limits of renewables. One ...

New report: European battery storage grows 15% in 2024, EU ...

Europe's 2025 growth hinges on the large-scale utility battery projects set to come online in the course of the year. The large-scale battery segment is growing rapidly, and ...



[Spain sets new 2030 energy storage target of 22.5 GW](#)

The draft went through public consultation in mid-2023. A key focus of the PNIEC 2023 is promoting renewables, storage, and demand management to enhance their ...



This is how the initial projects of the 250 battery factories expected

Poland Impact Clean Power Technology, a Polish company part of the Grenevia Group, has announced ambitious plans for a large-scale battery factory for EVs and energy ...



Targets 2030 and 2050 Energy Storage

onal energy and climate plan (NECP). Spain already foresees the critical role for energy storage to support renewable deployment and is targeting 20 GW by 2030 and 30 GW by 2050 ...

Battery Storage Era: 5 Reasons BESS Is ...

Battery costs have fallen down substantially by over 90 percent in recent years to make energy storage an attractive investment for the solar and wind project developers. Notably, the global average lithium-ion battery pack ...





Energy Outlook 2025: Energy Storage

Since then we have seen huge growth in the sector in the US, and we expect to see this to continue into 2025, with several large-scale battery storage projects set to complete ...

[BESS in Spain: the situation of the energy storage ...](#)

The market energy storage in Spain, particularly in relation to the BESS systems (Battery Energy Storage Systems), is undergoing a dynamic and accelerated evolution. This transformation is driven by the growing need to ...



Hybrid renewable assets and free battery market will have Spain ...

To prevent congestion and other grid problems, all this energy has to be stored for later use or for balancing the grid. Thus, battery storage becomes an essential part of the ...

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<https://conrad.edu.pl>