

## Average BESS price per 250kW in Italy



## Overview

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The Elemens Italy BESS Index is the first performance indicator for spot market revenues of stand-alone utility-scale batteries operating in the Italian electricity system. The tool has been designed to provide industry players with up-to-date and detailed insights into the economic performance of.

The Fast Reserve auction, held in 2020, resulted in the first wave of BESS projects coming online in Italy. The auction resulted in 250 MW of BESS capacity coming online. This capacity consists of smaller projects with a capacity of up to 25 MW and a short duration. The Fast Reserve service is.

The latest energy price in Italy is € 114.16 MWh, or € 0.11kWh This is -2% less than yesterday. The issue of electricity pricing in Italy, a subject of much discussion, finds itself at the forefront of public concern as the cost of energy generation and transmission continues its upward trajectory.

The residential electricity price in Italy is EUR 0.348 per kWh or USD 0.405. The electricity price for businesses is EUR 0.360 kWh or USD 0.419. These retail prices were collected in December 2024 and include the cost of power, distribution and transmission, and all taxes and fees. Compare Italy.

2023: Household prices rose 6% to 38.64 euro cents/kWh—much lower than the previous year's 40% spike. 2024: EU-wide prices dropped ~5%, but Italy's

trend was more nuanced due to phasing out subsidies and rising network costs. 2025 (Q1 forecast): Vulnerable consumers on the Standard Offer service. How much does a Bess battery cost?

Factoring in these costs from the beginning ensures there are no unexpected expenses when the battery reaches the end of its useful life. To better understand BESS costs, it's useful to look at the cost per kilowatt-hour (kWh) stored. As of recent data, the average cost of a BESS is approximately \$400-\$600 per kWh. Here's a simple breakdown:.

Is Bess a good investment in northern Italy?

While Northern Italy currently has the largest installed BESS capacity in the country, a build-out of RES in the South is increasing energy price volatility, creating a more compelling investment case for BESS in this region.

What is the Elemens Italy Bess index?

The Elemens Italy BESS Index is the first performance indicator for spot market revenues of stand-alone utility-scale batteries operating in the Italian electricity system. The tool has been designed to provide industry players with up-to-date and detailed insights into the economic performance of BESS assets.

How is the Italian government aiming for 15GW of Bess capacity?

The Italian government is aiming for 15GW of BESS capacity by 2030 to maintain security of supply. The Italian government, regulator, and Transmission Service Operator (TSO) are creating an attractive regulatory environment for BESS by offering multiple incentive schemes and updating the grid code.

What is the business case for Bess in Italy?

Revenue Streams for BESS: The business case for BESS in Italy is underpinned by four main revenue streams: wholesale trading, the Ancillary Services Market (MSD), the Capacity Market (MC), and the new energy storage subsidy scheme (MACSE).

How much Bess capacity will Italy have by 2030?

That is why Italy aims to add 15GW of BESS capacity by 2030 (of which 11GW should be standalone and 4GW co-located). As of March 2025, Italy has got

1GW of grid-scale BESS capacity online, placing the country in third place in Europe (shared with Ireland) in terms of installed capacity, behind Germany (1.6GW) and the UK (5.6GW).

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### BESS gains edge with declining costs

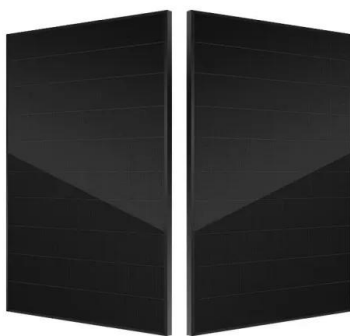
According to BMI, the average cost of BESS projects with planned completion dates between 2024 and 2028 is around \$270 per kilowatt (kW), whilst pumped-hydropower costs \$1,100/kW, and CAES \$1,350/kW. The ...

### BESS in Germany 2025 and Beyond: Use Cases, Business

...

BESS Capacity across Germany and Projected Growth By mid-2024, Germany's total BESS capacity reached 16 GWh, which included: 13 GWh residential 1.1 GWh ...

**12.8V 100Ah**



### Customized predictions of the installed cost of behind-the-meter

In Section 2, I review the prior literature that estimates or forecasts the installed cost of BTM BESS. Typically, prior works have estimated the installed cost of a representative ...

### Key to cost reduction: Energy storage LCOS broken down

As of the end of March, the average low price for 280 Ah energy-storage cells dropped by 8.3% to RMB 0.36/Wh. By 2030, the average LCOS of li-

ion BESS will reach below ...



## Cost of battery-based energy storage, INR 10.18/kWh, ...

Currently, the cost of battery-based energy storage in India is INR 10.18/kWh, as discovered in a SECI auction for 500 MW/1000 MWh BESS. The government has launched viability gap funding and Production-Linked ...



## How Italy is Driving BESS Investment

While Northern Italy currently has the largest installed BESS capacity in the country, a build-out of RES in the South is increasing energy price volatility, creating a more compelling investment case for BESS in this region.



## Electricity prices

Bottom Line: Italy's electricity market is not just changing--it's evolving into a model for the rest of Europe. As renewables take center stage and pricing gets smarter, all eyes will be on how Italy ...



## EU expects battery pack price of less than \$100/kWh ...

That trend is expected to continue. In 2026/27, the average pack price is expected to fall below \$100/kWh, based on raw material costs, competition, and pressure from alternative technology such as Na-ion ...



## BESS Costs Analysis: Understanding the True Costs of Battery

To better understand BESS costs, it's useful to look at the cost per kilowatt-hour (kWh) stored. As of recent data, the average cost of a BESS is approximately \$400-\$600 per ...

### cost of bess per mwh

Investing into BESS A Goldman Sachs report from February 2024 indicates an average price of \$115 per kWh for EV batteries. However, these figures primarily relate to battery cells. Total ...



## Italy: household electricity prices 2024, Statista

Electricity prices for Italian households with an annual consumption between 1,000 and 2,500 kilowatt-hours averaged 35.9 euro cents per kilowatt-hour in 2024.



## Commercial Battery Storage , Electricity , 2023 , ATB

The cost and performance of the battery systems are based on an assumption of approximately one cycle per day. Therefore, a 4-hour device has an expected capacity factor of 16.7% ( $4/24 = 0.167$ ), and a 2-hour device has an expected ...



## Cost, shipping, energy density drive move to 5MWh ...

Clean Energy Associates (CEA) has released its latest pricing survey for the BESS supply landscape, touching on price, products and policy.



## Cost of battery storage per mw Germany

VPI, Quantitas create 500-MW BESS partnership in Germany VPI, a UK and Ireland-focused power company part of the Vitol Group, has agreed to partner with Oslo-based energy storage ...



## Utility-Scale Battery Storage , Electricity , 2021 , ATB , NREL

Current costs for utility-scale battery energy storage systems (BESS) are based on a bottom-up cost model using the data and methodology for utility-scale BESS in (Feldman et al., 2021). ...





## Understanding BESS Price per MWh in 2025: Market Trends and ...

Understanding BESS Price per MWh in 2025: Market Trends and Cost Drivers When evaluating battery energy storage system (BESS) prices per MWh, think of it like buying a high ...



## Residential Battery Storage , Electricity , 2024 , ATB

As with utility-scale BESS, the cost of a residential BESS is a function of both the power capacity and the energy storage capacity of the system, and both must be considered when estimating system cost. Furthermore, the Distributed ...

## ? Electricity prices in Italy

Despite the efforts of both the government and energy providers to curb these expenses and advance sustainability, a significant portion of consumers remain affected by this ...



## BESS market in the Netherlands

BESS unit prices in China, USA & Europe \*DNV Capex prices of utility scale BESS projects with 4-hour duration. BESS unit prices include battery cells, racks, enclosure & PCS. This is ...

## BESS costs increased to 76,000 yen/kWh in FY2023 ...

6 ???· At a meeting of Ministry of Economy, Trade and Industry's study group on the expansion of stationary battery energy storage systems (BESS) held on August 29, 2024, Mitsubishi Research Institute (MRI) presented findings of a ...



## Example of a cost breakdown for a 1 MW / 1 MWh ...

Download scientific diagram , Example of a cost breakdown for a 1 MW / 1 MWh BESS system and a Li-ion UPS battery system from publication: Dual-purposing UPS batteries for energy storage functions

## Battery Energy Storage Systems (BESS)

Therefore, battery energy storage systems (BESS) are needed in Italy. The Italian market for BESS is growing rapidly and currently amounts to 2.3 GW but it almost ...

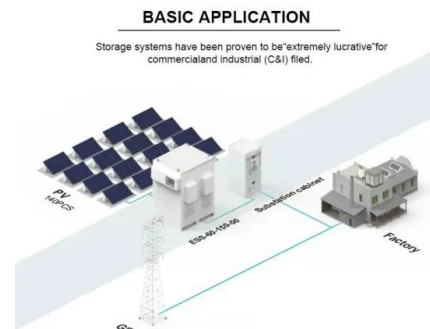


## BESS in Germany 2025 and Beyond: Use Cases, ...

BESS Capacity across Germany and Projected Growth By mid-2024, Germany's total BESS capacity reached 16 GWh, which included: 13 GWh residential 1.1 GWh commercial 1.8 GWh large-scale systems Germany led ...

## Commercial Battery Storage , Electricity , 2023 , ATB , NREL

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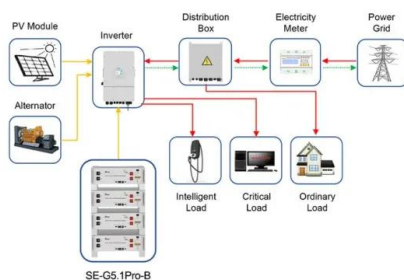


## 2024 BESS revenue performance: a tale of 3 markets

A recovery in BESS revenues has been underway since Feb 2024, as gas prices have recovered & weather conditions normalised. Rising price volatility (& negative prices) from increasing RES penetration have also ...

## Backup power for Europe

In this article, we will examine the lucrative opportunities the Italian government has created for BESS investment, positioning Italy among the most attractive countries for ...



Application scenarios of energy storage battery products

## Residential Battery Storage , Electricity , 2024 , ATB , NREL

As with utility-scale BESS, the cost of a residential BESS is a function of both the power capacity and the energy storage capacity of the system, and both must be considered when estimating ...

## Italy cost of battery storage per mw

The Italian market for BESS is growing rapidly and currently amounts to 2.3 GW but it almost exclusively consists of residential scale systems, associated with small scale solar ...

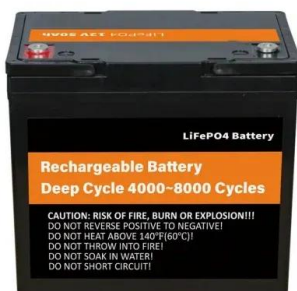


## How do the costs of battery energy storage systems ...

Battery Energy Storage Systems (BESS): Cost: The average cost of BESS ranges from \$400 to \$600 per kWh. Advantages: Li-ion batteries are widely used due to their efficiency and long lifespan, though they are more ...

## Italy electricity prices, December 2024 , Global Petrol Prices

The residential electricity price in Italy is EUR 0.000 per kWh or USD . These retail prices were collected in December 2024 and include the cost of power, distribution and transmission, and ...



## BESS arbitrage revenue ranked by country & duration

Timera Energy set out a ranked analysis of BESS day-ahead arbitrage revenue capture across European markets in 2022 vs 2023 & look at key investment takeaways.

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