PIENAAR ENERGY (PTY) LTD

4-hour energy storage capacity BESS price

Overview

The capital cost for long-duration (4 hours or more) utility-scale battery energy storage systems (BESS) in markets outside China and the U. reached roughly $125/kWh by October 2025, according to a recent report by Ember. This cost reflects a split of around $75 for core equipment and about $50. As of most recent estimates, the cost of a BESS by MW is between $200,000 and $420,000, varying by location, system size, and market conditions. This translates to around $150 - $420 per kWh, though in some markets, prices have dropped as low as $120 - $140 per kWh. 4-hour: Typically used for load shifting and managing evening peak demand. Commercial & Industrial systems: $0.

4-hour energy storage capacity BESS price

Ember Report Reveals Utility-Scale Battery Storage Now Costs Just $65

According to Ember's Decemreport "How cheap is battery storage?", the all-in capital expenditure for large, long-duration utility-scale Battery Energy Storage System (BESS) projects has ...

Get Price

Long-Duration Utility-Scale BESS Project Cost Drops to $125/kWh: Ember

BloombergNEF's 2024 global benchmark for core BESS equipment was around $165/kWh, but this figure averages higher-cost markets such as the U.S. and a wider supplier base. The $75/kWh cited for ...

Get Price

Understanding BESS Price per MWh in 2025: Market Trends and Cost

Industry data reveals current BESS project costs range between $280,000 to $480,000 per MWh installed, depending on configuration and ancillary components.

Get Price

Battery Energy Storage System (BESS) Costs and LCOS in 2024-2025: ...

Commercial & Industrial systems: $0.319-$0.506/kWh for 1MW/2-hour setups. In China, intense market competition, a mature supply chain, and favorable policies have driven LCOS for large-scale BESS to among ...

Get Price

How cheap is battery storage? , Ember

Across global markets outside China and the United States, the total capex to build a long-duration (4 hours or more) utility-scale BESS project is around $125/kWh, of which around $75/kWh is for ...

Get Price

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

We use the capacity factor for a 4-hour device as the default value for ATB because 4-hour durations are anticipated to be more typical in the utility-scale market.

Get Price

Battery storage system prices continue to fall

In 2025, the global average price of a turnkey battery energy storage system (BESS) is US$117/kWh, according to the Energy Storage Systems Cost Survey 2025 from BloombergNEF (BNEF), ...

Get Price

The Cost of Battery Energy Storage Systems (BESS)

As of 2024, the average price for a utility-scale BESS is approximately $148/kWh 1. For a 1 GWh system, this translates to $148 million. It's important to note that this cost includes not just the batteries ...

Get Price

What is the Cost of BESS per MW? 2026 Update!

For example, a 1 MW / 4 MWh BESS has four hours of storage capacity.So, while the system might be $200,000 per MW, the effective cost can be $50,000 per MWh if it has four hours duration.

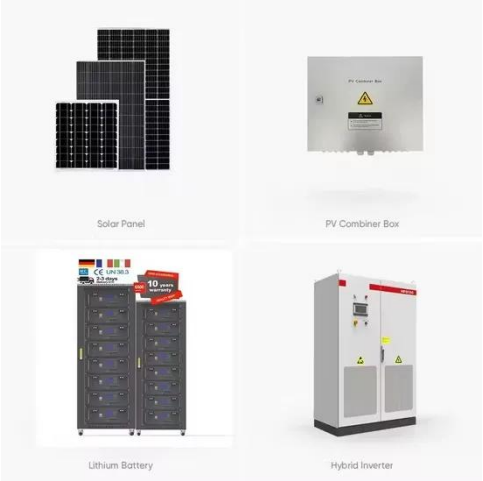
Get Price

Battery Storage Fact Sheet October 2025

4-hour: Typically used for load shifting and managing evening peak demand.

8-hour: Provides extended support during prolonged periods of low renewable generation or system stress. 10+ hour: Long duration BESS for ...

Get Price



Contact Us

For catalog requests, pricing, or partnerships, please visit: https://www.pienaarshof.co.za