

# Average BESS price per 10kW in Indonesia





## Overview

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As of recent data, the average cost of a BESS is approximately \$400-\$600 per kWh. Here's a simple breakdown: This estimation shows that while the battery itself is a significant cost, the other components collectively add up, making the total price tag substantial. Several factors can influence the.

The Indonesia Energy Storage Market accounted for \$XX Billion in 2023 and is anticipated to reach \$XX Billion by 2030, registering a CAGR of XX% from 2024 to 2030. A 5MW battery energy storage system (BESS) pilot project has been launched by Indonesia's state-owned utility and battery manufacturer.

The need for storage increases from 2030 onwards with capex of electricity storage grows to around USD 82 billion in 2035 and further declines to USD 42 billion in 2050. Started in 2013, provides low-interest loan and ● repayment subsidies. Aims to support private individuals in increasing own.

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 price of lithium, a material used for lithium-ion battery modules which accounts for around 60%.

The first quarter of 2025 marks a pivotal period for the Battery Energy Storage Systems (BESS) market in Indonesia. Driven by the nation's commitment to expanding renewable energy capacity and integrating sources like solar and wind into its national grid, the demand for BESS is on an upward.

Provides statistical tables and publications grouped into various CSA



(Classification of Statistical Activities) subjects v1.1. Apart from that, the tables provided also include tables in Indonesian Statistics publications. Energy - energy supply, energy use, energy balances, security of supply. How can Bess help the EV market in Indonesia?

The growing EV market will necessitate a robust battery ecosystem, including storage solutions for grid integration and charging infrastructure. Indonesia's focus on industrial growth creates a demand for reliable power. BESS can offer backup power, improve power quality, and enable cost savings through peak shaving.

Is Indonesia a market in the energy transition?

Indonesia is a market in the energy transition as the country is moving from fossil fuels to clean energy resources. In 2023, Indonesia derived approximately 60% of its energy from coal, while renewable energy's contribution is estimated at about 15%.

What percentage of Indonesia's energy comes from coal?

In 2023, Indonesia derived approximately 60% of its energy from coal, while renewable energy's contribution is estimated at about 15%. By 2025 and 2030, the Indonesia government aims to achieve the target of 23% and 30% of renewable energy contribution into the energy mix.

Which tables are included in Indonesian Statistics Publications?

Apart from that, the tables provided also include tables in Indonesian Statistics publications. Energy - energy supply, energy use, energy balances, security of supply, energy markets, trade in energy, energy efficiency, renewable energy sources, government expenditure on energy.

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:.

Why is battery energy storage system important in Indonesia?

However, given the challenge of Indonesia's geological landscape, with many



off-grid and remote areas, there is growing intermittency issue that hamper the development of solar and wind generation. Hence, the battery energy storage system (BESS) technologies have a critical role in the development of Indonesia's renewable energy.



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### LEVELIZED COST OF ELECTRICITY IN INDONESIA

installed in Indonesia with capital cost ranges from 1400 - 2000 USD/kW. This is close to the average investment cost in Europe, but higher compared to the average cost in North and ...

### 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



### US utility-scale energy storage pricing report H2 2024

This report analyzes the cost of lithium-ion battery energy storage systems (BESS) within the US utility-scale energy storage segment, providing a 10-year price forecast ...

### BESS in Great Britain: Ten key trends in 2024

Why battery revenues are becoming more location-dependent, with assets in Scotland and Southeast England outperforming the ME BESS GB Index. How cycling rates and optimization strategies are widening revenue differences ...



### What goes up must come down: A review of BESS ...

The Crimson BESS project in California, the largest that was commissioned in 2022 anywhere in the world at 350MW/1,400MWh. Image: Axiom Infrastructure / Canadian Solar Inc. Despite geopolitical unrest, the ...



### [BESS revenue capture ranked across Europe](#)

Late-year Dunkelflaute shocks & gas volatility: A colder-than-average Q4, coupled with extended periods of Dunkelflaute (low wind and solar availability), spurred higher power & gas prices. The resulting price volatility ...



### Europe grid-scale energy storage pricing 2024

This report analyses the cost of lithium-ion battery energy storage systems (BESS) within Europe's grid-scale energy storage segment, providing a 10-year price forecast ...





### Battery Energy Storage System & Power Conversion in Indonesia ...

PT Modular Energy Indonesia specializes in integration of innovative energy storage solutions, focusing on battery energy storage system (BESS) and power conversion systems (PCS). ...



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

The cost model has published cost projections for a 5-kW/14-kWh BESS through 2030 (BNEF, 2020), and the projections are based on learning rates and future capacity projections.

### FY2028 capacity auction clears 166.2GW at 11,134 ...

6 ???· On January 29, 2025, OCCTO released results of the main capacity market auction for FY2028 delivery, which was held earlier this fiscal year. Overall, 166.2GW, or approximately 97% of all bids, was awarded an average ...



### Lithium-ion battery pack prices fall 20% in 2024

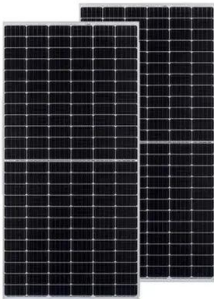
BESS system-level costs in China have fallen to just US\$82 per kWh in Q3, said Iola Hughes, head of research for Rho Motion (a downstream battery industry analysis firm recently acquired by lithium-ion battery materials ...





### Residential Battery Storage , Electricity , 2021 , ATB

Current (2020) costs for residential BESS are based on NREL's bottom-up BESS cost model using the data and methodology of (Feldman et al., 2021), who estimated costs for both AC- and DC-coupled systems for a less-resilient (3 ...



### Residential Battery Storage , Electricity , 2021 , ATB , NREL

Current (2020) costs for residential BESS are based on NREL's bottom-up BESS cost model using the data and methodology of (Feldman et al., 2021), who estimated costs for both AC- ...

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

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51.2V 300AH



### 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 ...



### [BESS costs could fall 47% by 2030, says NREL](#)

The national laboratory is forecasting price decreases, most likely starting this year, through to 2050. Image: NREL. The US National Renewable Energy Laboratory (NREL) has updated its long-term lithium-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 ...

### **Lithium-ion battery pack prices fall 20% in 2024**

BESS system-level costs in China have fallen to just US\$82 per kWh in Q3, said Iola Hughes, head of research for Rho Motion (a downstream battery industry analysis ...



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

Figure 3 shows the resulting utility-scale BESS future cost projections for the Moderate Scenario for 2-10 hours in terms of both \$/kWh and \$/kW. For the Advanced and Conservative BESS ...



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

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 ...



### COST OF LARGE-SCALE BATTERY ENERGY STORAGE ...

The average for the long-duration battery storage systems was 21.2 MWh, between three and five times more than the average energy capacity of short- and medium-duration battery storage ...

### Market attractiveness analysis of battery energy ...

This study provides a comprehensive analysis of the BESS market in Southeast Asia, offering critical insights for policymakers, investors, and researchers to understand the current status and growth prospects of ...



### Utility-Scale Battery Storage , Electricity , 2023 , ATB

Base year 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 (Ramasamy et al., 2022). The bottom-up BESS model accounts for ...



## Indonesia Battery Energy Storage Systems Market Report

This report delves into the significant developments and strategic initiatives shaping the BESS landscape in Indonesia, highlighting key market segments and trends.



## RenewaFi Launches ERCOT BESS Price and Value Tracking

In addition to the TB2 valuation, users can overlay average offer prices for BESS tolling agreements from RenewaFi's marketplace. This dataset also includes BESS toll match ...

## PowerChina receives bids for 16 GWh BESS tender ...

In what is described as the largest energy storage procurement in China's history, Power Construction Corporation of China (PowerChina) is targeting an unprecedented cumulative storage capacity of 16 GWh. The bids ...



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

Figure 3 shows the resulting utility-scale BESS future cost projections for the Moderate Scenario for 2-10 hours in terms of both \$/kWh and \$/kW. For the Advanced and Conservative BESS cost scenarios, we apply the normalized ...



## Impact of Location and Optimization on Maximizing BESS Revenue

This chart illustrates the concept for a 2-hour battery, where the dots on the line represent hourly average RT prices, and the bars show the cost of charging and the revenue ...



### Table 1 . Costs Estimation for Different BESS ...

Download Table , Costs Estimation for Different BESS Technologies. from publication: Break-Even Points of Battery Energy Storage Systems for Peak Shaving Applications , In the last few years

## 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 ...



### 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 ...



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