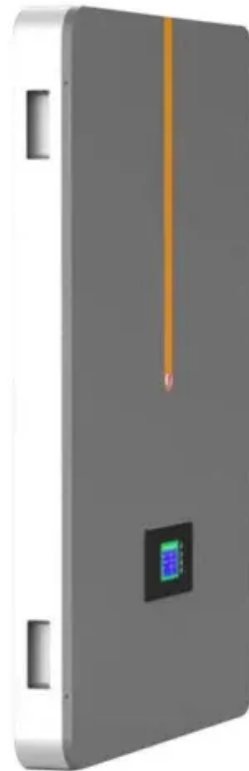


## BESS cost breakdown in Vietnam 2025



## Overview

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As at November 2024, Vietnam had only three pilot BESS projects: one at Power Engineering Consulting Joint Stock Company 2 (PECC2), another at VinFast and a third at Kehua Digital Energy in Khanh Hoa.

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Average domestic retail prices for petroleum products in Vietnam from 2008 to 2019 24 FIGURE 12. Projections for domestic oil product prices under the main scenario from 2020 to 2050 25 FIGURE 13. Historical gas prices by field from 2010 to 2020 26 FIGURE 14. Projections for domestic natural gas.

The analysis uses NREL's REopt®2 platform, a distributed energy modeling and optimization tool, to identify the cost-optimal system sizing for BESS, in conjunction with existing and future onsite renewable generation, to reduce electricity costs, improve onsite solar photovoltaic (PV) utilization.

The first quarter of 2025 marks a pivotal period for the Battery Energy Storage Systems (BESS) market in Vietnam, driven by rapid advancements in renewable energy integration and strategic governmental support. As Vietnam continues its ambitious energy transition, the deployment of advanced battery.

factured BESS c and NFPA 855 for fire safety. Force (established in 2 ct te er on re nd g and industrial partnerships. Success depends on tariff reforms, local manufacturing scale-up and grid modernizati t dability, .

As of most recent estimates, the cost of a BESS by MW is between \$200,000 and \$450,000, varying by location, system size, and market conditions. This translates to around \$200 - \$450 per kWh, though in some markets, prices have dropped as low as \$150 per kWh. Key Factors Influencing BESS Prices.

BESS operates on a simple principle: they charge (or store energy) when there is surplus electricity and discharge (or release energy) when there is a deficit.

The process involves three main steps: Charging: Excess electricity, often generated from renewable sources like photovoltaic (PV) modules. Will Vietnam develop 300 MW of Bess by 2030?

Vietnam's current goal of developing only 300 MW of BESS by 2030 appears modest, but the figure does not include systems coupled to rooftop solar systems. To foster a resilient, efficient, and sustainable energy future, Vietnam should aim high.

How much does a Bess system cost in Vietnam?

In 2023, EVN PECC3 estimated that the cost for a 2 MWh BESS system was 360–420 USD/kWh, and that the investment would requires electricity prices in Vietnam above 18 UScent/kWh to be profitable – this is twice the current levels. However, BESS costs are declining rapidly.

Does Vietnam have a Bess market?

Currently, the BESS market in Vietnam is nascent, with significant limitations in terms of technical expertise and infrastructure. As at November 2024, Vietnam had only three pilot BESS projects: one at Power Engineering Consulting Joint Stock Company 2 (PECC2), another at VinFast and a third at Kehua Digital Energy in Khanh Hoa.

How a Bess project is promoting energy storage in Vietnam?

Encouraging domestic enterprises to invest in new technologies will promote the growth of the energy storage industry in Vietnam. Investment in BESS projects in Vietnam is attracting the attention of international partners due to the country's strong potential for RE development.

Does Vietnam have a Bess project?

Although no large-scale BESS projects have been implemented yet, Vietnam has put in place the conditions for BESS roll-out. Vietnam has a growing number of engineers and specialists in the RE sector. Training programmes at universities and research organisations are beginning to place emphasis on energy storage technology.

Why is Bess important in Vietnam's energy transition?

**Regulatory Landscape** The Vietnamese government has recognized the importance of BESS in the country's energy transition. The revised National

Energy Policy includes new incentives for BESS installations, such as tax credits and subsidies, which are aimed at accelerating the adoption of energy storage solutions.

## BESS cost breakdown in Vietnam 2025

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

Projected Utility-Scale BESS Costs: Future cost projections for utility-scale BESSs are based on a synthesis of cost projections for 4-hour-duration systems as described by (Cole and Karmakar, ...

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

Prices are expected to increase nominally in 2025, as shown in the chart above, before jumping more substantially in 2026. That larger increase is primarily down to new tariffs imposed by the US on battery products from ...

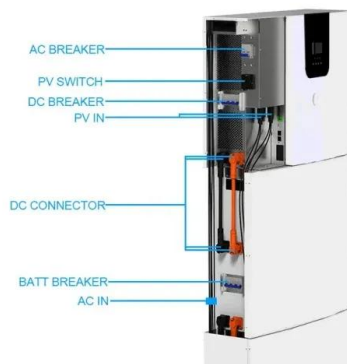


### cost of bess per mwh

performance values and provide current cost ranges; 2) increase fidelity of the individual cost elements comprising a technology; 3) provide cost ranges and estimates for storage cost ...

### Pioneering Innovation with Vietnam's BESS Pilot Project

Leveraging the Potential of BESS BESS emerges as a critical enabler in Vietnam 's transition towards a future of energy efficiency, security, and sustainability. By storing surplus ...



**#DinhDucThang**  
**#TapdoanStavian**  
**#StavianGroup ...**

Shortly, BESS will be a device serving the potential market when Vietnam is preparing a legal framework for self-produced and self-consumed rooftop solar power, the DPPA mechanism, and above all, the ESG ...

## Grid-Scale Battery Storage: Costs, Value, and

Grid-Scale Battery Storage: Costs, Value, and Regulatory Framework in India Webinar jointly hosted by Lawrence Berkeley National Laboratory and Prayas Energy Group

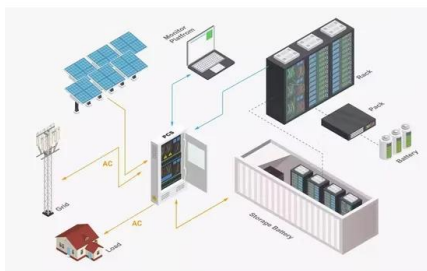


## Battery Energy Storage System Production Cost

Case Study on Cost Model of Battery Energy Storage System (BESS) Manufacturing Plant  
Objective: One of our clients has approached us to conduct a feasibility study for establishing a mid to large-scale Battery Energy Storage ...

## Cost Projections for Utility-Scale Battery Storage

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



## Big opportunities for BESS in 2025

Downward pricing will feed through to reduced levelised cost of storage (LCoS), with new BESS projects, due online in 2025 and the next few years able to capitalise on much cheaper batteries. However, older assets face ...

## BESS Report-30 May

Country Delivery Lead- Vietnam, Global Energy Alliance for People and Planet (GEAPP) I am delighted to present this detailed study on Enhancing Vietnam's Grid Stability with BESS ...



## Vietnam Battery Energy Storage Systems Market Report

The residential and commercial segments of the BESS market in Vietnam are experiencing notable growth. Rising electricity costs and the desire for energy independence encourage the ...

## V3.3 Forecast update: Modelling changes and ...

Version 3.3 of the Modo Energy Battery Revenue forecast has just been released. This update introduces new modeling of intraday price and dispatch.



## Global Power Storage Pricing: BESS Most Cost ...

Article Global Power Storage Pricing: BESS Most Cost Competitive With Declining Input Costs  
 Power & Renewables / Global / Mon 13 May, 2024  
 Key View Battery energy storage systems will be the most ...

## Vietnam Battery Energy Storage System Market (2025-2031)

BESS enables the storage of electricity generated from renewable sources, contributing to grid stability and ensuring a reliable power supply. The market encompasses a variety of battery ...



- ☒ IP65/IP55 OUTDOOR CABINET
- ☒ OUTDOOR CABINET WITH AIR CONDITIONER
- ☒ OUTDOOR ENERGY STORAGE CABINET
- ☒ 19 INCH

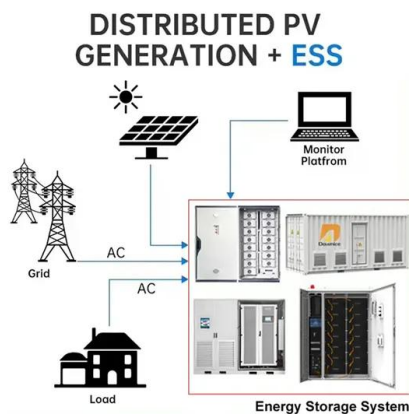
## What is the CAPEX of BESS?

BESS CAPEX: Breakdown Understanding the components of BESS CAPEX is important for investors, engineers, and energy planners. The following will give an outlook on ...



## 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 ...

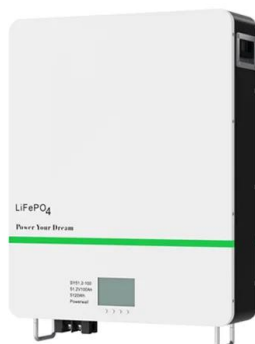


## BESS costs could fall 47% by 2030, says NREL

Compared to 2022, the national laboratory says the BESS costs will fall 47%, 32% and 16% by 2030 in its low, mid and high cost projections, respectively. By 2050, the costs could fall by 67%, 51% and 21% in the three ...

## Cost models for battery energy storage systems

The study presents mean values on the levelized cost of storage (LCOS) metric based on several existing cost estimations and market data on energy storage regarding three different battery ...



## BESS in Germany 2025 and Beyond:

Peak Load Management Demand Response: During peak demand periods, BESS supplies stored energy to the grid, reducing the need for additional generation capacity. Peak Shaving: ...

## Capital Cost and Performance Characteristics for Utility ...

To accurately reflect the changing cost of new electric power generators in the Annual Energy Outlook 2025 (AEO2025), EIA commissioned Sargent & Lundy (S&L) to evaluate the overnight ...



## Report

This article provides an overview of BESS fundamentals, including their operational principles, economic implications, and potential benefits for Vietnam. Despite the current lack of large ...

## Global Power Storage Pricing: BESS Most Cost Competitive With ...

Article Global Power Storage Pricing: BESS Most Cost Competitive With Declining Input Costs Power & Renewables / Global / Mon 13 May, 2024 Key View Battery ...



## Report

The article examines the present state of BESS in Vietnam, highlighting local manufacturing capabilities and regulatory challenges. It also explores strategic approaches outlined in ...

## Economic analysis of solar power plant and battery

This study aims to evaluate the economic performance of a solar power plant (SPP) in Vietnam both before and after integrating a BESS through key metrics including the ...



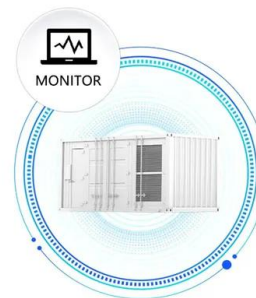
## Energy Storage Cost and Performance Database

Cost and performance metrics for individual technologies track the following to provide an overall cost of ownership for each technology: cost to procure, install, and connect an energy storage ...

## CEA: Trade barriers set to see U.S. BESS prices ...

2025 is likely to see battery prices surge in the United States on the back of increases in tariffs and duties imposed on battery energy storage systems and their components from China. While lithium iron phosphate (LFP) ...

SUPPORT REAL-TIME ONLINE  
MONITORING OF SYSTEM STATUS

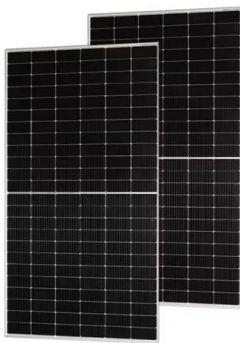


## BESS prices in US market to fall a further 18% in ...

China-headquartered Sungrow provided the BESS units for this project in Texas, US. Image: Revolution BESS / Spearmint Energy. After coming down last year, the cost of containerised BESS solutions for US-based buyers ...

## Volta's 2024 Battery Report: Falling costs drive battery ...

The 500 page report offers a full picture of the battery industry, including a deep focus on battery energy storage systems (BESS).



## Ministry of Industry and Trade

Vietnam's Revised Power Development Plan 8 (PDP8), approved in April 2025, marks a significant shift toward renewable energy and energy storage to achieve net-zero ...

## Battery Energy Storage System Production Cost , Case Study

Case Study on Cost Model of Battery Energy Storage System (BESS) Manufacturing Plant  
Objective: One of our clients has approached us to conduct a feasibility study for establishing a ...



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