

# **Cost structure of energy storage**





## Overview

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How are energy storage systems priced?

They are priced according to five different power ratings to provide a relevant system comparison and a more precise estimate. The power rating of an energy storage system impacts system pricing, where larger systems are typically lower in cost (on a \$/kWh basis) than smaller ones due to volume purchasing, etc.

How much does a gas storage system cost?

Generally speaking, the cost of the gas storage tank is the most expensive part of the entire system. Operation and maintenance costs include energy consumption and equipment maintenance. The current cost of compressed air energy storage systems is between US\$500-1,000/kWh.

Why is energy storage cost important?

One of the key considerations when it comes to energy storage is cost. Energy storage cost plays a significant role in determining the viability and widespread adoption of renewable energy technologies. The cost of energy storage is a crucial aspect to consider when evaluating the feasibility and scalability of renewable energy systems.

How do you calculate a storage system cost?

It involves dividing all expenses (including capital expenditures and operation and maintenance costs throughout the system's lifetime  $N$ ) by the amount of energy discharged by the storage system,  $E_{out}$ , over the same period. The capital cost and energy output are adjusted for the time value of money using the discount rate.



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Energy storage costs

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## DOE ESHB Chapter 25: Energy Storage System Pricing

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