

How big is the global supercapacitor market?

Source: Secondary Research, Interviews with Experts, MarketsandMarkets Analysis The global supercapacitor market is projected to grow from USD 1.35 billion in 2025 to USD 2.84 billion by 2030, at a CAGR of 16.1%. Growth is driven by adoption of automotive, consumer electronics, renewable energy, and industrial automation.

Why are supercapacitors more expensive than batteries?

High capital cost and low energy density of supercapacitors make the unit cost of energy stored (kWh) more expensive than alternatives such as batteries. Their attributes make them attractive for uses in which frequent small charges/discharges are required (e.g., ensuring power quality or providing frequency regulation).

How are Supercapacitors made?

A large part of the cost of supercapacitors comes from the active carbon material that is produced from char (incomplete combustion of natural gas and oils) and biochar products. Biochar is the carbon produced by pyrolysis of biomass sources. Currently, coconut shells are the primary source of material to produce activated carbon via biochar.

How much is the supercapacitors market worth in 2025?

The supercapacitors market is valued at USD 0.54 billion in 2025 and is projected to double to USD 1.09 billion by 2030.

What is the market share of supercapacitors in 2024?

By configuration, Electric Double-Layer Capacitors led with 55.2% of the supercapacitors market share in 2024, while Hybrid Supercapacitors are projected to expand at an 18.1% CAGR through 2030. By form factor, modules commanded 57.8% share of the supercapacitors market in 2024, and packs are forecast to grow at 17.4% CAGR to 2030.

How much is the supercapacitor industry worth in 2021?

Adapted from .. The global supercapacitor industry was valued at \$1.5 billion in 2021 and is expected to experience a compound annual growth rate of 30% from 2021 to 2030 to become a \$15 billion industry .

Sep 15, 2023&nbsp;&nbsp;This work proposes a design and fabrication method for supercapacitors with a materials guide that, firstly, guides researchers in the development of supercapacitors and, ...

Aug 19, 2023&nbsp;&nbsp;What factors will affect the price of super capacitors? The production materials of super capacitors The price of supercapacitors has a direct correlation with the production ...

Aug 15, 2023&nbsp;&nbsp;Coal and its derivatives have high carbon content, low price, and use them as precursors to prepare PCNFs for supercapacitor energy storage manifests great potential [73], ...

Jan 1, 2023&nbsp;&nbsp;As a supercapacitor electrode material, several carbon-based materials, metal-oxides, and metal-organic frameworks have been briefly mentioned here. The current review ...

While lithium-ion batteries dominate headlines, supercapacitor cost per kWh has emerged as a critical metric for industries demanding rapid charge-discharge cycles and extreme durability. ...

The global Supercapacitor Market Size in terms of revenue is estimated to be worth \$1.35 billion in 2025 and is poised to reach \$2.84 billion by 2030, growing at a CAGR of 16.1% during the ...

Jul 9, 2025&nbsp;&nbsp;The costs of supercapacitors are tabulated in this data-file, with a typical system storing 15-seconds of electricity, for a capex cost around \$10,000/kWh of energy but just ...

Jun 1, 2025&nbsp;&nbsp;A battery-type hybrid supercapacitor demonstrates the high energy density of batteries and the high-power density of supercapacitors by inculcating both battery and ...

Jun 1, 2020&nbsp;&nbsp;While wind and solar generation has increased dramatically over the past decade, there has been a much larger increase in gas generation (eia, 2019). This is driven in part by ...

Nov 3, 2025&nbsp;&nbsp;Supercapacitor What is a supercapacitor? Supercapacitors, also known as ultracapacitors or electrochemical capacitors, are energy ...

Aug 1, 2024&nbsp;&nbsp;Porous carbon materials have been considered a kind of promising materials for supercapacitors due to high specific surface area and excellent electro...

What drives the price of charging supercapacitors? As energy storage solutions gain momentum across industries, supercapacitors have emerged as a game-changer for rapid energy ...

Jul 19, 2023&nbsp;&nbsp;A large part of the cost of supercapacitors comes from the active carbon material that is produced from char (incomplete combustion of natural gas and oils) and biochar products.

2 days ago&nbsp;&nbsp;This article provides an analysis of energy storage cost and key factors to consider. It discusses the importance of energy storage costs in ...

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