

## European Solar Energy Storage

# China's energy storage installed capacity composition



## Overview

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By the end of 2024, projects with an installed capacity of 100,000 kilowatts or above accounted for 62.3 percent of the total, a rise of approximately 10 percentage points from 2023, while projects between 10,000 and 100,000 kilowatts made up 32.8 percent, and those below 10,000.

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At the end of 2023, more than 35 underground natural gas storage facilities were operating in China, with a combined capacity of 0.94 Tcf. In addition, 36 underground natural gas projects were under construction, which, if completed, will add 1.2 Tcf of capacity by 2028.<sup>31</sup> In 2023, 29 LNG.

China's National Energy Administration (NEA) has released the China New Energy Storage Development Report 2025, marking the first official and comprehensive government report dedicated to the country's rapidly advancing new energy storage (NES) sector. The report, jointly prepared by the NEA's.

BEIJING, Jan. 24 -- China's new energy storage sector has seen a rapid growth in 2024, with installed capacity surpassing 70 million kilowatts, said an official with the National Energy Administration (NEA). Bian Guangqi, deputy director of the NEA's energy saving and technology equipment.

In 2024 alone, China added 42.37 GW/101.13 GWh of new storage capacity (excluding pumped hydro), with an average discharge duration of 2.3 hours—up from 2.1 hours in 2023. From ESS News China's National Energy Administration (NEA) announced on January 23 that the country's installed capacity of new.

By the end of 2023, China had completed and put into operation a cumulative installed capacity of new type energy storage projects reaching 31.4GW / 66.9GWh, with an average storage duration of 2.1 hours. The newly added

installed capacity in 2023 was approximately 22.6GW / 48.7GWh, which is three.

China's electrochemical energy storage industry experienced significant growth in 2024, with installed capacity surging past previous records. A report from the China Electricity Council (CEC), released on March 29, titled "2024 Statistical Report on Electrochemical Energy Storage Power Stations,". How big is China's energy storage capacity?

The most notable finding: by the end of 2024, China had reached 73.76 GW / 168 GWh in cumulative new energy storage capacity—an increase of more than 130% year-on-year. This figure accounts for over 40% of the global total, consolidating China's leading position in the international NES market.

How much energy storage does China have in 2023?

By the end of 2023, China had completed and put into operation a cumulative installed capacity of new type energy storage projects reaching 31.4GW / 66.9GWh, with an average storage duration of 2.1 hours. The newly added installed capacity in 2023 was approximately 22.6GW / 48.7GWh, which is three times that for 2022 (7.3GW / 15.9GWh).

What is the future of energy storage in China?

The new energy storage market in China has great development potential in the future. The cumulative installed capacity of new energy storage in China is expected to exceed 100 gigawatts (GW) by 2025, according to the Energy Storage Industry Research White Paper 2025 released by the Institute of Engineering Thermophysics on 10 April.

Does Cnesa have a role in China's new energy storage capacity?

CNESA's involvement reflects the report's collaborative yet government-led nature, ensuring data integrity and broad sectoral representation. The most notable finding: by the end of 2024, China had reached 73.76 GW / 168 GWh in cumulative new energy storage capacity—an increase of more than 130% year-on-year.

What energy storage technologies are available in China?

Currently, there are dozens of new energy storage technology routes in China, including advanced compressed air energy storage, flywheel energy storage, lithium iron phosphate batteries, vanadium redox flow batteries, and sodium-

ion batteries, each suitable for different scenarios based on their characteristics.

What percentage of China's Electricity is generated from fossil fuels?

Coal still accounted for most (62%) of the energy consumed in China (Table 1).<sup>3</sup> In 2024, non-fossil fuels accounted for 56% of total installed electricity generation capacity. Although most of the electricity generation (63%) came from fossil fuels, fossil fuels share of generation decreased by 1% from the previous year.<sup>4</sup>

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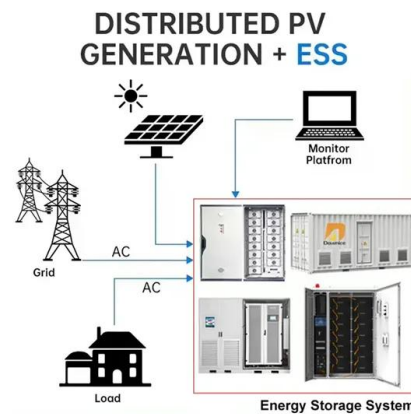


### China's Energy Storage Installed Capacity Ranking: Who's ...

As the sun sets on fossil fuels, China's storage leaders aren't just building batteries - they're wiring the nervous system of tomorrow's energy internet. Will your province make the next top 5?

### China's Battery Storage Capacity Doubles in 2024

By December 31, 2024, China's total installed capacity stood at 62 GW and 141 GWh. The majority--95%--of these installations were either standalone storage units or systems paired with renewable energy sources.



**1mwh** (500kw/1mw)

AIR COOLING  
 ENERGY STORAGE CONTAINER



### China Country Analysis Brief

China had almost 74 GW of installed new energy storage capacity in 2024, a 130% increase from the previous year's 31 GW (most of which was battery storage capacity).<sup>52</sup> China defines new energy storage as batteries and other emerging technologies such as compressed air, flywheel, and thermal energy storage.<sup>53</sup>

### INSIGHT: China new energy storage capacity to ...

The cumulative installed capacity of new energy

storage in China is expected to exceed 100 gigawatts (GW) by 2025, according to the Energy Storage Industry Research White Paper 2025 released by the Institute ...



## China's new energy storage capacity exceeds 70 million KW

North China represents a highland of the sector with its installed capacity accounting for 30.1 percent of the national total, followed by northwestern regions at 25.4 percent, and eastern regions at 16.9 percent.

## China leads in new energy storage capacity and might ...

According to incomplete statistics, by the end of 2024 China's installed capacity of power storage projects has reached 137.9 GW, accounting for 37.1% of global. The installed capacity of new energy storage reached 78.3 ...



## CHINA'S ACCELERATING GROWTH IN NEW TYPE ...

In terms of application, equipping energy storage in renewable electricity generation projects is the main application field for new type energy storage, with a cumulative installed capacity ratio accounting for more than 90% (49% in generation-side storage, 43% in grid-side storage).

## China's new energy storage capacity surges to 74 ...

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## China's new energy storage capacity surges to 74 GW/168 GWh ...

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## China leads in new energy storage capacity and might reach 200 ...

According to incomplete statistics, by the end of 2024 China's installed capacity of power storage projects has reached 137.9 GW, accounting for 37.1% of global. The installed capacity of new energy storage reached 78.3 GW in 2024, accounting for 47% of global, with lithium-ion batteries dominating.



## China's energy storage capacity soars to support clean energy

Lithium-ion batteries accounted for 97.4 percent of China's new-type energy storage capacity at

the end of 2023 and other technologies are developing rapidly, said Bian Guangqi, an NEA official, at a press conference.



## INSIGHT: China new energy storage capacity to surge by 2030

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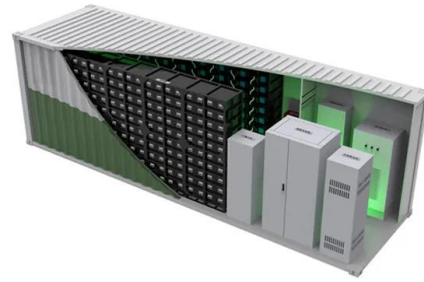
## China National Energy Administration Released Official Report

Independent and shared storage facilities now make up 46% of total capacity, while co-located storage with renewable energy accounts for 42%. Operational efficiency also improved significantly in 2024, with national average equivalent utilization hours increasing by 300 hours over the previous year.

## [China Country Analysis Brief](#)

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