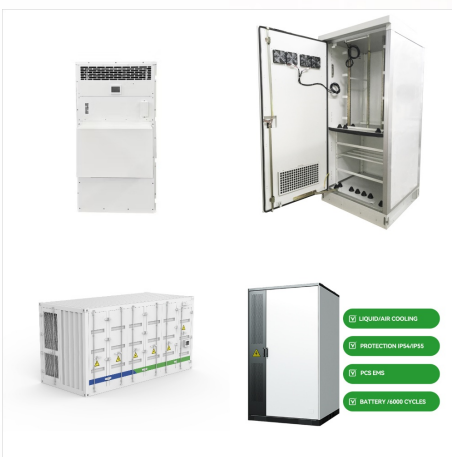




The global energy storage market is growing faster than ever. Deployments in 2023 came in at 44GW/96GWh, a nearly threefold increase from a year ago and the largest year-on-year jump on record. BloombergNEF expects 67GW/155GWh will be added in 2024,???



BNEF New Energy Outlook gives a long-term scenario analysis on the future of the energy economy. These sector and regional reports go into even more detail. wind and electric vehicles as well as the development of new technologies such as clean hydrogen and carbon capture and storage to decarbonize the country's economy.



The Electric Vehicle Outlook is our annual long-term publication looking at how electrification, shared mobility, autonomous driving and other factors will impact road transport in the coming decades. (e.g.: solar, wind, storage, decentralized energy, power networks) Commodities (e.g.: oil and gas, metals, chemicals, agriculture) Cross

# BNEF ENERGY STORAGE OUTLOOK



The global energy storage market will reach a cumulative 1,676GW/5,827GW by 2050, up from 11GW/22GWh in 2019, attracting \$964 billion in investment over the next three decades. China, the U.S. and India will top the ranking, representing over???



The US energy storage market is rapidly growing, with California and Texas accounting for most deployments. We expect installed capacity to reach 132GW/460 gigawatt-hours (GWh) by 2030 as utilities in the Northwest, PJM and the Southeast now add energy storage in their integrated resource plans.



The New Energy Outlook 2024, alongside energy storage and nuclear power, before 2030. Matthias Kimmel, head of energy economics at BNEF, said, "Renewable energy, electric vehicles and energy storage are already being deployed at scale and will only grow further in the next few years. These three technologies are no-regrets choices

# BNEF ENERGY STORAGE OUTLOOK



The global energy storage capacity has been on the increase as a total of 16GW was added last year, equivalent to a 68% of year-on-year growth, according to BloombergNEF (BNEF). BNEF's Energy Storage Market Outlook series unveiled that 2022 was the global energy storage's record addition. However, the growth is expected to continue in the



2H 2023 Energy Storage Market Outlook. You must login to view this content. Login Three years into the decade of energy storage, deployments are on track to hit 42GW/99GWh, up 34% in gigawatt hours from our previous forecast. China is solidifying its position as the largest energy storage market in the world for the rest of the???

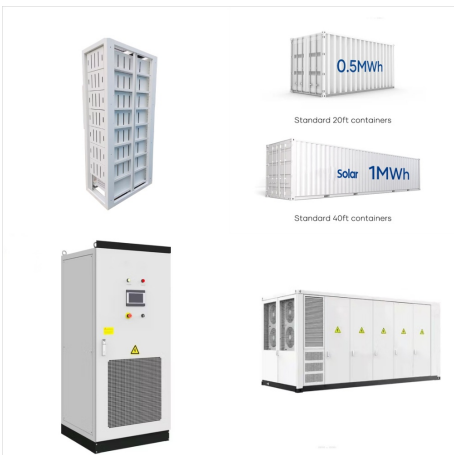


According to BNEF's 2H 2022 Energy Storage Market Outlook, the US and China remain the two largest markets, accounting for more than half of storage installations globally by 2030. However, companies are already scaling up operations to capture the upside," said Yayoi Sekine, head of energy storage at BNEF. Choose your newsletter by

# BNEF ENERGY STORAGE OUTLOOK



ARPA-E Advanced Research Projects Agency ???  
Energy BNEF Bloomberg New Energy Finance  
CAES compressed-air energy storage CAGR  
compound annual growth rate Energy Storage  
Grand Challenge Energy Storage Market Report  
2020 December 2020 Figure 43. Hydrogen energy  
economy 37 Figure 44.



BNEF's outlook accounts for policy delays but major  
changes to announced programs, such as a  
remodel of the US IRA tax credits after the  
November presidential election, would impact this  
forecast. buildings and agriculture sectors to adapt  
to the energy transition. We help commodity trading,  
corporate strategy, finance and policy



BNEF's Long-Duration Energy Storage Cost Survey  
defines long-duration energy storage (LDES) as one  
that can offer duration of at least six hours. Average  
capital expenditure (capex) was derived from 278  
data points provided by 95 participants, aggregated  
for durations between one and 20 hours, and  
technology delivery years from 2018 to 2024.



We investigate these energy futures and discuss what it means to get on track for net-zero by 2030. We hope this year's analysis is a valuable input to support strategy development and long-term planning, especially in the lead-up to COP26 in November. Each of our scenarios combines greater electrification, clean electricity and energy storage

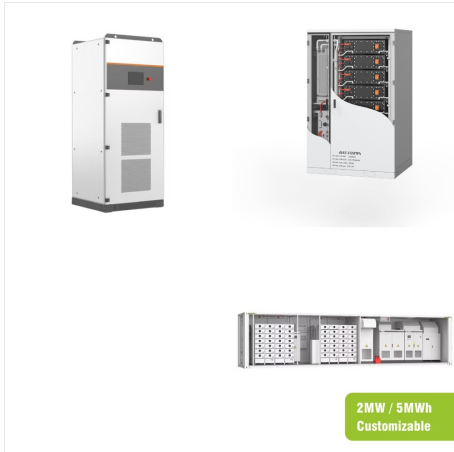


BNEF's latest Long-Term Energy Storage Outlook sees the capital cost of a utility-scale lithium-ion battery storage system sliding another 52% between 2018 and 2030, on top of the steep declines seen earlier this decade. This will transform the economic case for batteries in both the vehicle and the electricity sector.



Capacity growth: More than 140 million metric tons per annum of new capture capacity has been announced since BNEF's last market outlook, in 2022. The industry is now expected to grow at a 18% compound annual growth rate to capture 420 million tons per annum by 2035 ??? or 1.1% of current global annual emissions from fuel combustion and

# BNEF ENERGY STORAGE OUTLOOK



The global energy storage market will grow to a cumulative 1,095GW/2,850GWh by 2040 from 9GW/17GWh in 2018, attracting \$662 billion in investment over this period. Cheaper batteries are enabling usage in more applications, including for energy???



The New Energy Outlook 2024, alongside energy storage and nuclear power, before 2030. Matthias Kimmel, head of energy economics at BNEF, said, "Renewable energy, electric vehicles and energy storage are ???



The US is on track to see over 25% growth in annual clean energy installations this year, according to BloombergNEF's 2H 2024 US Clean Energy Market Outlook. BNEF expects the US to hit an all-time high of 65 gigawatts of new solar, wind and energy storage additions this year despite persistent structural hurdles like permitting and grid connections.

# BNEF ENERGY STORAGE OUTLOOK



The falling costs of grid-scale battery energy storage system (BESS) technology, a topic that has been much discussed recently on Energy-Storage news, will support growth, BNEF said. It found that as of February 2024, a 2-hour duration turnkey BESS in China cost an average of US\$115/kWh, a 43% decrease from a year before.



BNEF expects energy storage located at homes and businesses to make up about one quarter of global storage installations by 2030. The desire of electricity consumers to use more self-generated solar power and appetite for back-up power are major drivers. BNEF also updated its technology outlook to include sodium-ion batteries, a lithium-ion



Energy storage hit another record year in 2022, adding 16 gigawatts/35 gigawatt-hours of capacity, up 68% from 2021. Beyond record additions, several markets announced ambitious energy storage targets totaling more than 130GW by 2030, although???

# BNEF ENERGY STORAGE OUTLOOK



Three years into the decade of energy storage, deployments are on track to hit 42GW/99GWh, up 34% in gigawatt hours from our previous forecast. China is solidifying its position as the largest energy storage market in the world for the rest of the???



? According to BNEF's 1H 2024 Energy Storage Market Outlook, 67 GW/155 GWh will be added in 2024. The US will be the second largest market, propelled by state targets, utility procurements and attractive merchant economics in locations like Texas, the research firm said.



The global energy storage market will grow to deploy 58GW/178GWh annually by 2030, according to forecasting by BloombergNEF. The group's H1 2022 Energy Storage Market Outlook report was published shortly before the end of March. While acknowledging that near-term deployments have been dampened by supply chain constraints, there will be a