

# WHAT IS THE OUTLOOK FOR ENERGY STORAGE IN 2025



What is the future of energy storage? Storage enables electricity systems to remain in balance despite variations in wind and solar availability, allowing for cost-effective deep decarbonization while maintaining reliability. The Future of Energy Storage report is an essential analysis of this key component in decarbonizing our energy infrastructure and combating climate change.



How much energy storage will the world have in 2022? New York, October 12, 2022 ??? Energy storage installations around the world are projected to reach a cumulative 411 gigawatts (or 1,194 gigawatt-hours) by the end of 2030, according to the latest forecast from research company BloombergNEF (BNEF). That is 15 times the 27GW/56GWh of storage that was online at the end of 2021.



What will the energy sector look like in 2025? EIU???s report provides in-depth analysis of the trends and disruptions that will define the energy sector in the year ahead. In 2025 falling interest rates will benefit borrowers, but erode bank profitability. Financial markets will shift as bond markets rally, equities remain stable and IPO activity picks up in Asia.



How much energy storage is needed to Triple renewables? To facilitate the rapid deployment of new solar PV and wind power that is necessary to triple renewables, global energy storage capacity must increase sixfold to 1 500 GWby 2030. Batteries account for 90% of the increase in storage in the Net Zero Emissions by 2050 (NZE) Scenario, rising 14-fold to 1 200 GW by 2030.



What will China's battery energy storage system look like in 2030? Battery energy storage systems (BESS) will have a CAGR of 30 percent, and the GWh required to power these applications in 2030 will be comparable to the GWh needed for all applications today. China could account for 45 percent of total Li-ion demand in 2025 and 40 percent in 2030???most battery-chain segments are already mature in that country.

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How will record electricity prices affect the residential storage market? Record electricity prices are forcing consumers to consider new forms of energy supply, driving the residential storage market in the near term. The significant utility-scale storage additions expected from 2025 onwards align with the very ambitious renewable targets outlined in the REPowerEU plan and a renewed focus on energy security in the UK.



The report offers a detailed demand outlook for 68 sectors and 78 fuels energy demand and the continued role of fossil fuels in the energy system mean emissions could continue rising through 2025???35. such as solar, wind, and energy storage systems, are projected to continue to grow, while those with higher costs???including hydrogen



The Energy Storage Market size is expected to reach USD 51.10 billion in 2024 and grow at a CAGR of 14.31% to reach USD 99.72 billion by 2029. China announced its plan to boost cumulatively installed non-pumped hydro energy storage to around 30 GW by 2025 and 100 GW by 2030, which, coupled with recent adoptions of time-of-use power tariffs



U.S. Energy Information Administration | Short-Term Energy Outlook 2 Overview U.S. energy market indicators 2023 2024 2025 Brent crude oil spot price (dollars per barrel) \$82 \$81 \$78 Retail gasoline price (dollars per gallon) \$3.50 \$3.30 \$3.20 U.S. crude oil production (million barrels per day) 12.9 13.2 13.5 Natural gas price at Henry Hub (dollars per million British



The Energy transition investment outlook: 2025 and beyond provides critical insights from 1,400 senior executives across 36 countries and territories, highlighting investment trends, risks, and the evolving strategies that are shaping this journey. 56 percent in renewable energy, 54 percent in energy storage, and 51 percent in transport and

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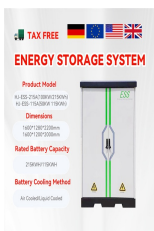
The natural gas futures market is a marketplace where standardized contracts for the future delivery of set natural gas volumes are traded. Most natural gas futures are bought and sold in the New York Mercantile Exchange and the Intercontinental Exchange ().Futures contracts allow participants to manage their exposure to market volatility by locking in a price ???



Increased energy demand and the continued role of fossil fuels in the energy system mean emissions could continue rising through 2025???35. Emissions have not yet peaked, and global CO 2 emissions from combustion ???



As shown in the World Energy Outlook 2022, in 2030 the share of electricity for EVs is relatively small compared to demand for industrial applications, appliances or cooling and heating. Share of electricity consumption from electric vehicles relative to final electricity demand by region and scenario, 2022 and 2030



Major shifts underway today are set to result in a considerably different global energy system by the end of this decade, according to the IEA's new World Energy Outlook 2023.The phenomenal rise of clean energy technologies such as solar, wind, electric cars and heat pumps is reshaping how we power everything from factories and vehicles to home ???



in the Annual Energy Outlook 2025. Representing an integrated hydrogen market in the National Energy Modeling System (NEMS) allows us to analyze the potential growth in hydrogen use as a clean energy ??? Seasonal storage In addition to developing the HMM, we are changing NEMS by modifying the existing consumption

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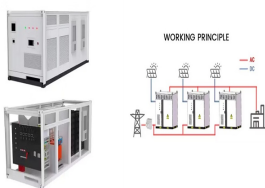
For sense of the market value at play here, Navigant report: \$9.2 billion in 2020 to \$36 billion by 2025 and nearly \$60 billion by 2030. Lithium-ion's success ??? a function of cost and performance. While Eller is positive over the outlook for energy storage, noting that there has never before been more development or deployment of energy



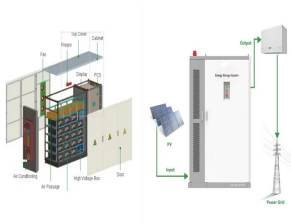
Developers expect to bring more than 300 utility-scale battery storage projects on line in the United States by 2025, and around 50% of the planned capacity installations will be ???



2025 2030 Battery storage Pumped storage Global grid-connected electricity storage capacity (GW) Energy storage follows wind and solar into the market Data compiled May 2023. Source: S&P Global Commodity Insights. 4x 30x.



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Short-Term Energy Outlook . Release Date: Oct. 8, In this month's outlook, we expect the Brent price will average \$78 per barrel (b) in 2025, \$7/b less than we expected in last month's STEO. In our forecast, lower crude oil prices largely reflect a reduction for global oil demand growth in 2025. Although we reduced our crude oil price

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Projects delayed due to higher-than-expected storage costs are finally coming online in California and the Southwest. Market reforms in Chile's capacity market could pave the way for larger energy storage additions in Latin America's nascent energy storage market. We added 9% of energy storage capacity (in GW terms) by 2030 globally as a



3 | bp Energy Outlook: 2022 edition 2 | Energy Outlook 2022 explores the key uncertainties surrounding the energy transition Energy Outlook 2022 is focussed on three main scenarios: Accelerated, Net Zero and New Momentum. These scenarios are not predictions of what is likely to happen or what bp would like to happen.



According to Wood Mackenzie's five-year outlook for the U.S. energy storage market, total U.S. storage deployments will grow 42% between 2023 and 2024, but capacity additions will level out as deployments increase with an average annual growth rate of 7.6% between 2025 and 2028. Across all segments, the industry is expected to deploy 12.8 GW



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MITEI's three-year Future of Energy Storage study explored the role that energy storage can play in fighting climate change and in the global adoption of clean energy grids. Replacing fossil ???



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the seasonal storage of hydrogen. ??? Hydrogen transportation network and storage capacity can expand if economic to do so. Annual Energy Outlook 2025 Modeling Update Presentation AEO, Modeling, 2025, Annual Energy Outlook, CCATS, HSM, HMM, hydrogen, end-use demand, power, electricity, National Energy Modeling System (NEMS)



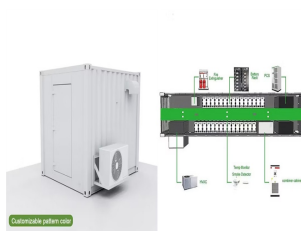
Annual Energy Outlook (released: March 16, 2023) -- See complete table listing for reference case and side cases. A1. Total energy supply and disposition demand; Available formats: XLS; A2. Energy consumption by sector and source ; Available formats: XLS; A3. Energy prices by sector and source; Available formats: XLS; A4.



The Energy Outlook is produced to inform bp's strategy and is published as a contribution to the wider debate about the factors shaping the energy transition. capture, use and storage. Oil demand declines over the outlook, driven by falling use in road transport as the efficiency



Short-Term Energy Outlook . Release Date: Oct. 8, We expect U.S. LNG exports to average 12.1 billion cubic feet per day (Bcf/d) in 2024 and 13.8 Bcf/d in 2025, with domestic consumption of natural gas falling by about 1 Bcf/d compared with this year. U.S. working natural gas in storage: XLSX: PNG: U.S. natural gas trade: XLSX: PNG

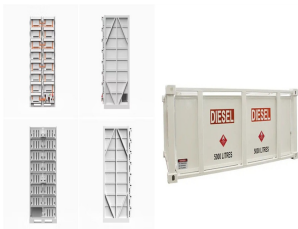


Enkon Energy Advisors is excited to host the inaugural 2025 Natural Gas Storage Forum, a unique and timely event bringing together various stakeholders and gas industry experts to offer their perspectives on natural gas storage trends, market drivers, development challenges, financing & investment opportunities and long-term fundamental outlook.

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Developers and power plant owners plan to significantly increase utility-scale battery storage capacity in the United States over the next three years, reaching 30.0 gigawatts (GW) by the end of 2025, based on our latest Preliminary Monthly Electric Generator Inventory.. Developers and power plant owners report operating and planned capacity additions, including ???



The World Energy Outlook 2023 provides in-depth analysis and strategic insights into every aspect of the global energy system. Against a backdrop of geopolitical tensions and fragile energy markets, this year's report explores how structural shifts in economies and in energy use are shifting the way that the world meets rising demand for energy.



72%. Seventy-two percent of investors report that investment in energy transition assets is accelerating, even amid geopolitical volatility and fluctuating interest rates. The commitment to ???



Annual Energy Outlook 2023 with projections to 2050. March 16, 2023 # AEO2023. 2025. 2030. 2035. 2040. 2045. 2050. Total energy-related carbon dioxide emissions. Note: Negative generation represents charging of energy storage technologies such as pumped hydro and battery storage. Hourly dispatch estimates are



In our latest Short-Term Energy Outlook, we forecast that U.S. working natural gas inventories will be 3,954 billion cubic feet (Bcf) by the end of October, the most natural gas in U.S. storage since November 2016. We forecast less-than-average cumulative injections for the rest of the injection season (through October) because inventories were relatively well ???

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What is energy storage? Energy storage is one of the fastest-growing parts of the energy sector. The Energy Information Administration (EIA) forecasts that the capacity of utility-scale energy storage will double in 2024 to 30 GW, from 15 GW at the end of 2023, and exceed 40 GW by the end of 2025. Energy storage projects help support grid reliability, ???



Denmark's Climate Status and Outlook. Denmark's Climate Status and Outlook 2023 (CSO23) is a technical assessment of how Denmark's greenhouse gas emissions, as well as Denmark's energy consumption and production will evolve over the period up to 2035 based on the assumption of a frozen-policy scenario ("with existing measures").