

Electricity storage gap





Overview

Energy storage systems can capture excess renewable energy in times of abundance and discharge energy when sun and wind are scarce.

Unfortunately, the development of storage assets has not kept pace with renewables, creating a massive storage gap. To date, 77 percent of global economies have a net-zero target, either proposed or legislated. ¹ But with a key interim decarbonization milestone now under just five years away, the energy transition shows signs of slowing momentum—at precisely the time it needs to speed up if targets are to be. The electric power grid operates based on a delicate balance between supply (generation) and demand (consumer use). One way to help balance fluctuations in electricity supply and demand is to store electricity during periods of relatively high production and low demand, then release it back to the. We expect 63 gigawatts (GW) of new utility-scale electric-generating capacity to be added to the U.S. power grid in 2025 in our latest Preliminary Monthly Electric Generator Inventory report. This amount represents an almost 30% increase from 2024 when 48.6 GW of capacity was installed, the largest. Energy storage systems can capture excess renewable energy in times of abundance and discharge energy when sun and wind are scarce. Unfortunately, the development of storage assets has not kept pace with renewables, creating a massive storage gap. In this post, we will explore the storage gap and. While tech giants explore nuclear fusion, thermal storage is ready today and can be deployed in months to provide cost-effective, reliable clean energy. Participants at the World Economic Forum Annual Meeting 2026 will discuss how such innovations can help build prosperity within planetary.



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Where will 9TW of energy storage come from? , UBS Global

More renewables in the energy mix requires more storage to address intermittency. Energy storage needs to grow 34-fold by 2050, reaching over 9,000 GW up from ~270GW today.



US power demand surges, renewables and storage needed to fill gap

As a long duration energy storage solution, Cold UTES offers a way to reduce and shift data center peak cooling loads, reducing demands on the electricity grid, while also improving cooling

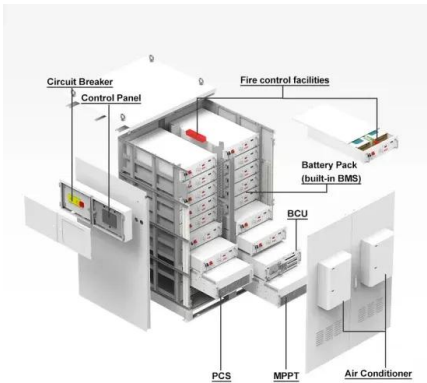


Off-grid Renewables' Role is Beyond Closing the Energy Access Gap

Over 666 million people remain without any access to electricity. This electricity-deprived population is more likely to live in remote areas and have lower incomes. Owing to their ease of ...

Nigerian Electricity Revenue Shortfall Hits N92.93bn in October

Nigerian electricity distribution companies (DisCos) experienced a significant revenue shortfall in October 2025. Data from the Nigerian Electricity Regulatory Commission (NERC) ...



Powering AI: How Data Centers Are Rewriting Power Generation

Battery energy storage systems (BESS) allow operators to stabilize the grid by smoothing out volatility, capturing excess renewable output and discharging during peaks.

Tracking the energy transition: Where are we now? , McKinsey

McKinsey, August 27, 2024. This year, we expanded our analysis in two ways: We added battery energy storage systems (BESS) and nuclear energy to the list of technologies analyzed (and ...



The power of sand: Can solid gravity close the energy storage gap

Gravity energy storage (GES) is an alternative for storing electricity in the form of potential energy by lifting solid objects or sand/gravel to high altitudes and generating electricity by releasing ...





Mind the Temperature Gap: The Role of Pit Thermal Energy Storage

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Pit thermal energy storage (PTES) provides large-scale thermal storage capacity in district heating systems, supporting flexibility on both daily and seasonal scales. Most existing large-scale energy

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MOTOMA at the 11th Iraq Energy Expo Supporting Solar and Energy Storage

MOTOMA concluded its participation at the 11th Iraq Energy Expo in Baghdad, engaging with local partners on solar power and energy storage solutions amid Iraq's growing renewable energy ...

Understanding ammonia energy's tradeoffs around the world

Many people are optimistic about ammonia's potential as an energy source and carrier of hydrogen, and though large-scale adoption would require major changes to the way it is currently ...



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