





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.





Why is energy storage important? Energy storage is a potential substitute for,or complement to,almost every aspect of a power system,including generation,transmission,and demand flexibility. Storage should be co-optimized with clean generation,transmission systems,and strategies to reward consumers for making their electricity use more flexible.





Why do we need a co-optimized energy storage system? The need to co-optimize storage with other elements of the electricity system, coupled with uncertain climate change impacts on demand and supply, necessitate advances in analytical tools to reliably and efficiently plan, operate, and regulate power systems of the future.





New York Gov. Kathy Hochul, D, has issued nearly \$15 million in funding to four long-duration energy storage demonstration projects, the New York State Energy Research and Development Authority



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 ???





Image: Ninedot Energy. A 110MW/440MWh battery storage project in New York has been given the green light by regulators, ahead of the launch of tenders which could create a significant market opportunity in the state. The New York State Public Service Commission (PSC) gave its approval earlier this month for the battery energy storage system



The AES Alamitos BESS facility pulled that off???and now is the world's first stand-alone energy-storage project for local capacity and grid-scale battery energy storage, with a long-term power



US utility giant NextEra Energy added 1.84GW of renewables and energy storage projects to its backlog in Q2 2021, but its Energy Resources division reported a fiscal loss of US\$315 million. Of the 1.84GW NextEra ???



New York State aims to reach 1,500 MW of energy storage by 2025 and 6,000 MW by 2030. Energy storage will help achieve the aggressive Climate Leadership and Community Protection Act goal of getting 70% of New York's electricity from renewable sources by 2030. Additionally, these projects will provide meaningful benefits to Disadvantaged



Ventura County received an upgrade in reliability this summer with the opening of a new battery storage facility in Saticoy that integrates new green technology into Southern California Edison's existing grid. Ventura Energy Storage is one of the largest of its kind, boasting a 100-megawatt, 400-megawatt-hour battery system to help provide power during peak demand.







Storing energy from the proposed offshore wind energy project, which could generate up to 3,000 megawatts, as well as other renewable sources such as onshore wind and solar projects, is necessary





It has 9.4GW of energy storage to its name with more than 225 energy storage projects scattered across the globe, operating in 47 markets. It also operates 24.1GW of Al-optimised renewables and storage, applied in some of the most demanding industrial applications. As part of the new airport's build, Daxing has an integrated project



The installed capacity of new energy storage projects that were put into operation during the first half of this year in China has reached 8.63 million kilowatts, equivalent to the total installed capacity of previous years in the country, according to the National Energy Administration (NEA).



Global energy storage developer Eku Energy is due to commence construction shortly on two new battery storage projects in the UK. Together the two projects in Basildon, Essex and Loudwater, Buckinghamshire have an installed capacity of 130MWh and will provide vital flexibility to support the UK electricity system, enable more renewable generation and ???







// Stock photo. DTE Energy in Detroit today announced the company is issuing a Request for Proposal (RFP) for new standalone energy storage projects totaling approximately 120 megawatts. The projects will support DTE Electric's CleanVision Integrated Resource Plan and Michigan's new standard of 60 percent renewable energy by 2030,





Eagle Mountain pumped storage hydro project lower reservoir location (photo courtesy ORNL) In August 2023, experts from Oak Ridge National Laboratory published an article on Hydro Review discussing development of pumped storage hydropower on mine land in the U.S. They said the U.S. Department of Energy's Office of Clean Energy Demonstrations aims ???





A key component of that is the development, deployment, and utilization of bi-directional electric energy storage. To that end, OE today announced several exciting developments including new funding opportunities for energy storage innovations and the upcoming dedication of a game-changing new energy storage research and testing facility.





Governor Hochul made today's announcement at the 2022 Advanced Energy Conference in New York City. These awards and new funding are being made available through the Renewable Optimization and Energy Storage Innovation Program administered by the New York State Energy Research and Development Authority (NYSERDA). The awards and funding ???





pair solar energy with an on-site, state-of-the-art 10-MW battery storage system (shown in cover photo, lower right, February 2020). More than 50% of the company's new solar projects in 2019 also included a storage component.







It added that the facility will be the first of its kind in New England and the largest long-duration energy storage project in the world. Form Energy, a green energy provider based in Somerville, Mass., said it will deploy an 85 megawatt battery system at the Lincoln Technology Park with the ability to discharge energy for up to 100 hours or



100 MW Moss Landing Energy Storage Facility, Phase II. Irving, Texas-based Vistra Corp. made the big even bigger last July when it completed construction on Phase II of its Moss Landing Energy Storage Facility, which is located at the site of its retired gas-fired power plant in Monterey County, California. The second phase added 100 MW/400MWh of storage ???



Photo by Jerry Zampino/BEI Construction. Despite the physical demands and the scale of the task, the team efficiently loaded an average of 486 battery modules per day and completed nearly 1,000



9 ? As the first large-scale centralized shared energy storage power station in Tianchang, the facility comprises a 220 kilovolt booster station and supporting energy storage ???



25 MWh at the Carling multi-energy site. The battery-based ESS facility at the Carling platform came on stream in May 2022 and comprises 11 battery containers. The facility has a storage capacity of 25 MWh, thereby reinforcing our multi-energy strategy at the platform, which is diversifying its activities through electricity production and storage, in addition to its ???







The commission said earlier it will introduce a plan for new energy storage development for 2021-25 and beyond, while local energy authorities should also make plans for the scale and project layout of new energy storage systems in their regions.





Solar and energy storage system integrator CS Energy said last week that it has been selected by an unnamed independent power producer (IPP) to work on a hybrid DC-coupled 5.1MW solar PV power plant with 2.5MW of battery storage in the New England state. CS Energy will be prime contractor performing engineering, procurement and construction





Adapted from a news release by the Department of Energy's Argonne National Laboratory.. Today the U.S. Department of Energy (DOE) announced the creation of two new Energy Innovation Hubs. One of the national hubs, the Energy Storage Research Alliance (ESRA), is led by Argonne National Laboratory and co-led by Lawrence Berkeley National ???



Project Schedule and Map. Current BESS Projects in construction: Santee 10 MW Battery Energy Storage System - estimated end date: Q1 2025; Borrego Springs: additional 6.7 MW Battery Energy Storage System (for a site total of 8 MW) - estimated end date: Q1 2025; Current Microgrid Projects in construction:





Largest wind renewable energy projects. Wind energy is one of the fastest-growing renewable energy sources. According to the 16 th Annual Global Wind Energy Council report, 93 GW of new capacity was added in 2020, representing a 53 % year-on-year increase. Gansu Wind Farm, China