

CALIFORNIA ENERGY STORAGE PROJECT PRICES



Why are California's energy storage grants important? ???These grants are really putting a marker around California???s commitment to ensuring we???re going to get long-duration energy storage to complement battery storage on the grid to meet our goals,??? CEC Commissioner Patty Monahan said during the agency???s June 12 meeting.



Are California's battery energy storage systems going up? For Immediate Release: October 24,2023 SACRAMENTO ??? New data show California is surging forwardwith the buildout of battery energy storage systems with more than 6,600 megawatts (MW) online,enough electricity to power 6.6 million homes for up to four hours.



What is the long duration energy storage program? The Long Duration Energy Storage program will pave the way for opportunities to foster a diverse portfolio of energy storage technologies that will contribute to a safe and reliable future grid. This program plays an important role in achieving California's zero carbon goals.



How do energy storage projects work? Energy storage projects capture power produced by wind and solar resources and discharge the energy back to the electric grid during times of peak demand. In California, electricity demand is highest in the late afternoon and early evening hours when the sun sets, causing solar resources to drop off before winds pick up later in the evening.

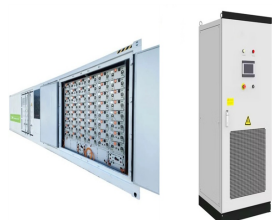


How many MW of energy storage capacity is needed by 2045? The state is projected to need 52,000 MWof energy storage capacity by 2045 to meet electricity demand. ???Energy storage systems are a great example of how we can harness emerging technology to help create the equitable,reliable and affordable energy grid of the future,??? said CEC Vice Chair Siva Gunda.

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Do you need long-duration energy storage? ???If you want clean, renewable energy every hour of every day of every month of every year, you need long-duration energy storage,??? said Julia Souder, executive director of the Long Duration Energy Storage Council, a trade group.



California's inclusion of US\$380 million financial support for long-duration energy storage projects could "activate" up to 20 projects in the US state, which has a "tremendous need" for energy storage. California Energy Storage Alliance (CESA), found that this meant the state would need to deploy between 2GW and 11GW of long



Scaling Up And Crossing Bounds: Energy Storage in California. Energy Storage Proceedings. R.10-12-007: In December 2010, the CPUC opened a Rulemaking to set policy for California Load Serving Entities (LSEs) to consider the procurement of viable and cost-effective energy storage systems in response to AB 2514. This rulemaking identified energy



We are excited to share the release of the updated Energy Storage Survey, showcasing California's remarkable progress in energy storage deployment.The state has added over 3,000 MW of battery storage capacity in the last six months alone, bringing the total to more than 13,300 MW ??? a 30% increase since April 2024 ().. This rapid expansion strengthens ???



California Energy Commission funding supports SMUD's decarbonization goals. Sacramento, Calif. ??? SMUD's long-duration battery storage project in partnership with ESS Tech, Inc. has been awarded a \$10 million grant from the California Energy Commission to demonstrate a groundbreaking 3.6-megawatt, 8-hour iron flow battery project and set the foundation for ???

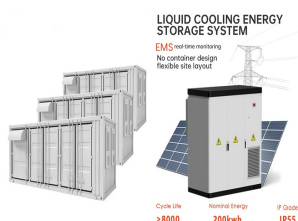
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A battery energy storage project in California is set to be the world's largest in terms of generation capacity when the facility is fully energized later in September. and power prices



Prices ; Petroleum: California: U.S. Average: Period: find more:
"California Energy Commission Approves \$31 Million for Tribal Long-Duration Energy Storage Project," Press Release (November 3, 2022). 144 U.S. Department of Energy, Office of Indian Energy Policy and Programs, Tribal Energy Projects Database, California, accessed April 26



Those proposals aimed to streamline and assist solar, offshore wind, battery storage and other green energy projects. Senate Bill 1272 would allow the California Energy Commission to adopt an overall environmental impact report that evaluates the potential effects common to a wide range of clean energy projects. The approach allows developers



Workshop 1: Project Overview and Battery Energy Storage 101 Thursday, March 21, 2024, 6:00 PM-8:00 PM San Marcos Community Center, 3 Civic Center Drive, San Marcos, CA 92069. Learn about how battery energy storage systems work, why they are needed, and hear the latest updates on the design and review process for the project.



When fully charged, the 100MW battery facility will be capable of holding 400MWh of electricity, which will be enough to power approximately 80,000 homes and businesses for four hours.. Location and site details. The Ventura energy storage project is being developed near the city of Oxnard, north of Los Angeles in the Ventura County of California.

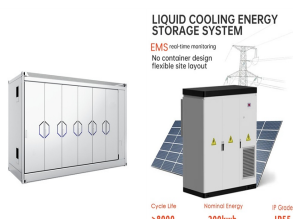
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To date, we operate solar projects in more than 30 states, including 11 solar projects and 10 energy storage projects in California. The energy storage component of this project uses batteries to store renewable energy and make it available even when the sun isn't shining, improving the reliability and efficiency of the electric grid and



This project studied the value of long duration energy storage (LDES) to support decarbonization at three geographic levels: (a) meeting Senate Bill 100 (De Le?n, Chapter 312, Statutes of 2018) and statewide electric sector decarbonization planning, (b) providing local capacity and criteria air pollutant reductions in a Los Angeles Basin case study, and (c) ???



3 CALIFORNIA'S ENERGY STORAGE PROCUREMENT MANDATE | APRIL 2017 PROCESS - Timeline: energy storage projects must be installed and operational after January 1, 2010, and no later than December 31, 2024. - Procurement: the utilities must hold competitive solicitations - in the form of RFOs - at least once every two years. The first round started in December 2014, ???



The California Energy Commission on June 12, 2024, approved \$26.7 million in funding for three long-duration energy storage projects that will be built by Redflow, RedoxBlox ???

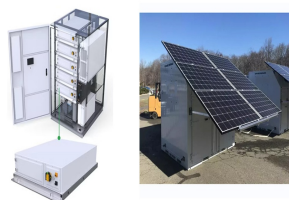


Sacramento ??? A \$31 million grant from the California Energy Commission (CEC) will be used to deploy a cutting-edge, long-duration energy storage system that will provide renewable backup power for the Viejas Tribe of Kumeyaay Indians and support statewide grid reliability in the event of an emergency. The project, which is funded by one of the largest state ???

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The project in Goleta, California, as it looks under construction. Image: Gridstor. Updated 8 June 2023: Gridstor VP of policy and strategy Jason Burwen offered some more details on the project to Energy-Storage.news. The Goleta facility is a merchant resource, but has a resource adequacy (RA) contract with utility Southern California Edison (SCE), he said.



SACRAMENTO ??? Non-fossil-fuel sources now make up 61 percent of retail electricity sales in California thanks to historic investment that has led to an extraordinary pace of development in new clean energy generation, according to the latest data compiled by the California Energy Commission (CEC). Sources eligible under the Renewables Portfolio ???



Energy-Storage.news reported earlier this week as one of those IOUs, Pacific Gas & Electric (PG&E), announced its own agreements with 6.4GWh of four-hour lithium-ion battery projects, including an expansion phase planned at Vistra Energy's Moss Landing Energy Storage Facility, the world's biggest lithium-ion battery energy storage system



In California, falling battery prices, coupled with the state's aggressive push toward a carbon-free electrical grid by 2045, have led to a packed pipeline of storage projects. A 2013 bill set a target of 1.325 gigawatts of storage to be commissioned for the state's grid by 2020. Several other states are also now embarking on major



The primary components of the project include an up to 3,200-megawatt-hour (MWh) battery energy storage system (BESS) facility, an operations and maintenance (O&M) building, a project substation, a 500-kilovolt (kV) overhead intertie transmission (gen-tie) line, and interconnection facilities within the Pacific Gas and Electric Company (PG&E)

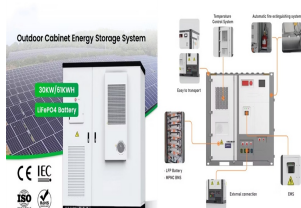
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The Sacramento Municipal Utility District's long-duration battery energy storage project in partnership with ESS Tech, Inc. has been awarded a \$10 million grant from the California Energy Commission to demonstrate the capability of iron flow battery technology.



The Sunlight Storage II Battery Energy Storage System project in Riverside County, California. The state's energy storage portfolio could yield grid benefits of up to \$1.6 billion a year by 2032



Pacific Gas and Electric (PG& E) proposed building nine new battery energy storage projects totaling around 1,600 MW of power capacity. If approved by the California Public Utilities Commission (CPUC), the nine projects (details below) would bring PG& E's total battery energy storage system capacity to more than 3.3 GW by 2024.



SCE boldly recognized the potential of large grid-scale energy storage and awarded AES a 20-year power purchase agreement (PPA) to provide 100MW/400 MWh of energy storage using a Fluence integrated system of lithium batteries, electronics, and advanced software. Then, Fluence was an AES/Siemens joint-venture. Now Fluence is a public company.

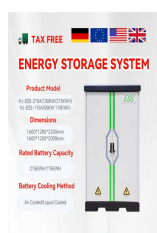


o Increases in RA Prices: Prices for both system and local RA increased significantly between 2021 and 2022, particularly for the summer months. After many years in which the weighted average price of local RA was higher than the weighted average price of system RA, in 2021, the weighted average price of system RA surpassed that of local RA.

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The California Energy Commission last week approved \$26.7 million in funding for three long-duration energy storage projects that will be built by Redflow, RedoxBlox and Noon Energy to serve



California regulators are set to vote this Thursday on a request from Pacific Gas & Electric to amend four energy storage project contracts required to ensure grid reliability, including by



The Tehachapi Energy Storage Project (TSP) is a 8MW/32MWh lithium-ion battery-based grid energy storage system at the Monolith Substation of Southern California Edison (SCE) in Tehachapi, California, sufficient to power between 1,600 and 2,400 homes for four hours. [1] At the time of commissioning in 2014, it was the largest lithium-ion battery system operating in ???



California Assembly Member Nancy Skinner (D-Berkeley), author of AB 2514, originally included a mandate that the state procure enough energy storage by 2020 to meet 5 percent of its average peak