



How much energy storage capacity does California have?

CA Surpasses 10,000 MW in Energy Storage Capacity! The California Energy Commission (CEC) storage tracker has been updated to reflect California's recent milestone, surpassing 10,000 MW in energy storage capacity. California leads globally in energy storage, with a focus on bolstering grid reliability and leveraging renewable resources.

What are early energy storage projects?

Many early energy storage projects were developed as merchant facilities, particularly in MISO, PJM, and ERCOT, or were supported by incentive programs that are no longer available for an industry that is rapidly commercializing.

What are energy storage policies?

Policies also exist to measure and express energy storage technology performance and reliability, as well as establish a basis for what is and is not considered safe. All anyone having a financial interest in any project using energy storage technology needs to BPG 8: Codes & Standards Ch. 1: Overview

Are energy storage standards a cross-cutting issue?

The energy storage industry has well defined safety standards but needs better reliability and performance standards. Many of the issues driving codes and standards in the energy storage market are cross-cutting issues that are relevant to many parts of the industry in general.

Are energy storage systems a good investment?

Energy storage systems, like all capital equipment, face critical issues based on system operation parameters. Indeed, every element of the project's success relies on the ability of the unit to maintain its expected performance and availability.

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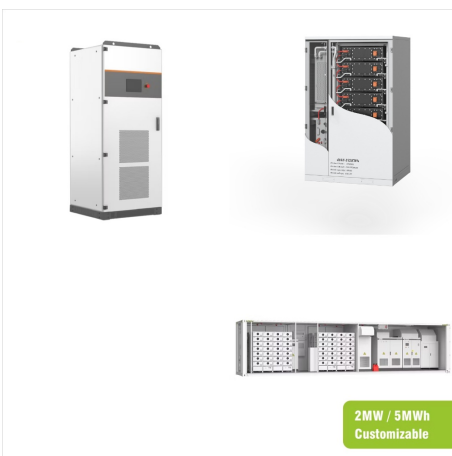
## 2019 CESA



Lawrence Berkeley National Laboratory has just released its annual report reviewing key trends in state renewables portfolio standards (RPS). The report, U.S. Renewables Portfolio Standards: 2019 Annual Status Report, is hosted by the Clean Energy States Alliance (CESA) for the RPS Collaborative, lead author Galen Barbose presented key



Energy Storage Mandate Hosted by Warren Leon, Executive Director, CESA of Energy, CESA facilitates the Collaborative. ??? Includes state RPS administrators, federal agency representatives, 2016 / 2019 Program evaluation . CPUC Documents on Energy Storage 16



a commissioner on the Berkeley Energy Commission, and an Affiliate in the incorporating energy storage. n economic issues, such as expanding clean energy at a reasonable cost to consumers, Xcel Energy A 2019 law (SB 19-236) codified a pledge previously made

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## 2019 CESA



Energy Storage 101, Part 2: CESA July 23, 2019  
Energy Storage Technology Advancement  
Partnership (ESTAP) Webinar. Housekeeping Join  
audio: ??? Choose Mic & Speakers to use VoIP ???  
Choose Telephone and dial using the information  
provided and is managed by CESA. 4. Energy  
Storage 101, Part 2: Best Practices in State Policy  
Todd Olinsky ???



8 Legislation that Led to the Pilot Program ??? May  
13, 2019 ???MD Gov. Hogan signed into law the  
Energy Storage Pilot Project Act (2019 MD SB573)  
??? August 23, 2019 ???MD PSC establishes the  
Energy Storage Pilot Program, Case No. 9619 ???  
The Energy Storage Pilot Program case evolved out  
of the existing Public Conference 44 (PC 44) and  
the Energy



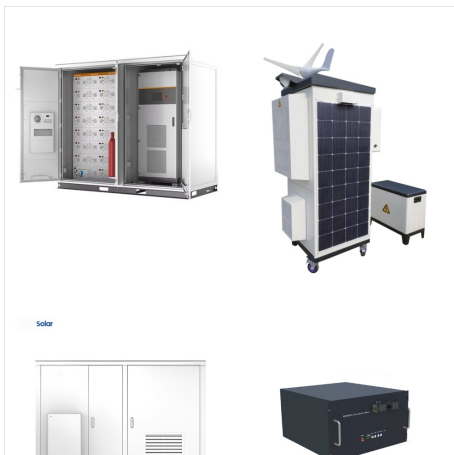
; 2018; 2017; 2016; 2015; 2014; 2013; 2012; 2011;  
2010; Lawrence Berkeley National Laboratory, and  
CESA, CESA is co-hosting the first-ever national  
meeting to focus on how states and the federal  
government can work cooperatively to advance  
states" efforts to decarbonize. "States Energy  
Storage Policy: Best Practices for

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## 2019 CESA



California Energy Storage Alliance (CESA) is a 501c(6) membership-based advocacy group committed to advancing the role of energy storage in the electric power sector through policy development, education, outreach, and research. The mission of CESA is to make energy storage a mainstream resource to advance a more affordable, efficient, reliable, safe ???



State of the U.S. Energy Storage Industry: 2018 Year in Review Hosted by Todd Olinsky-Paul, Project Director, CESA February 28, 2019 Energy Storage Technology Advancement Partnership (ESTAP) Webinar. Housekeeping Join audio: ??? Choose Mic & Speakers to use VoIP ??? Choose Telephone and dial using the



Green Mountain Power's Stafford Hill microgrid, a 4MW/3.4 MWh battery energy system integrated with solar generation in western Vermont, exemplifies the multiple uses and significant revenue potential of advanced energy storage combined with solar PV in a microgrid configuration, behind a utility meter.



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## 2019 CESA



REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON TRACK 3B.1 AND 4 PROPOSALS . Jin Noh . Policy Director . CALIFORNIA ENERGY STORAGE ALLIANCE. 2150 Allston Way, Suite 400 . Berkeley, California 94704 . Telephone: (510) 665-7811 . Email: cesa\_regulatory@storagealliance March 26, 2021 2019) REPLY ???



for critical infrastructure energy resiliency, and leads Ceg and Cesa on energy storage policy and program development at the state level. todd has a M.s. in environmental policy from Bard tions, it is notable that in 2019, sunrun bid 20 MW of BtM energy storage into the new england Forward Capacity Market for 2022. More recently, more than



In 2019, the energy storage market saw frequent ups and downs. Events in South Korean have prompted prudence over the safety and reliability of energy storage products. The development of the front-of-meter energy storage market in the United States has allowed people to see the value of energy storage while pursuing large-scale clean energy.

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This table includes all existing state energy storage procurement mandates, targets, and goals. The 2019 Climate Leadership and Community Protection Act set a goal of 1500 MW installed by 2025 and 3000 MW by 2030. In 2022, the state released a roadmap to achieve 6 GW of storage. CESA 50 State Street, Suite 1 Montpelier, VT 05602



ENERGY STORAGE BEST PRACTICE GUIDE  
Guidance for Project Developers, Investors, Energy Companies and Financial and Legal Professionals  
Lead Sponsors Fig. 1.7.1 Map of US Opportunity Zones (as of May 15, 2019) 93 Fig. 2.3.1 Technology Readiness of Energy Storage Technologies 109 Fig. 2.3.2 Technology and Commercial Readiness Levels 110



the case of energy storage, a relatively new technology for most state energy agencies, these decision points can be challenging. This report is intended to help state energy officials and program administrators conduct benefit-cost analysis of energy storage in a way that fully accounts for and fairly values its benefits as well as its costs.

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## 2019 CESA



Comments of the California Energy Storage Alliance (CESA) on the CAISO Hybrid Resources Issue Paper Submitted by Organization Date Submitted Alex J. Morris ??? 510-296-0463 California Energy Storage Alliance (CESA) August 13, 2019 CESA appreciates the CAISO's leadership in exploring market participation matters for hybrid resources.



Lawrence Berkeley National Laboratory has just released its annual report reviewing key trends in state renewables portfolio standards (RPS). The report, U.S. Renewables Portfolio Standards: 2019 Annual Status Report, is available on the lab's website. The report is published in slide-deck form.



This ESTAP webinar is the third in a multi-part energy storage webinar series will cover energy storage applications and economics. Numerous opportunities for revenue and cost savings have been identified for energy storage on both sides of the meter, including frequency regulation, demand charge management, arbitrage, ancillary services, T& D deferral and ???

# ENERGY STORAGE BERKELEY 2019 CESA



Strategen Consulting 2150 Allston Way, Suite 210, Berkeley, CA 94704 510.665.7811 To illustrate the value of energy storage in the ancillary services frequency regulation market, the California Energy Storage Alliance (CESA) selected a specific ancillary service ??? frequency regulation ??? and compared the



CESA Market Development Forum October 22-23, 2024 Berkeley, CA. The MDF is an invite-only gathering of the energy storage ecosystem, including regulators, utilities, and CESA members, focused on how energy storage will support California's decarbonization and grid reliability goals.