

California Public Utilities Commission Energy Storage Procurement Study. Lumen Energy Strategy, LLC. Prepared for the California Public Utilities Commission. May 31, 2023. No part of this work may be reproduced in any manner without appropriate citation.

What will the CPUC's next energy storage procurement study look like?

In its next energy storage procurement study the CPUC will have even more historical data to work with--likely with more complex market interactions as storage penetration increases.

What data sources were used in the CPUC energy storage procurement study?

CPUC Energy Storage Procurement Study: Realized Benefits and Challenges Chapter 2 45 Data sources. Energy storage operational data was provided by Pacific Gas and Electric (PG&E), Southern California Edison (SCE), San Diego Gas & Electric (SDG&E), the CAISO, and the CPUC.

What is CPUC energy storage procurement study V Ancillary services?

CPUC Energy Storage Procurement Study v ancillary services Ancillary services provide grid operational flexibility and stabilization for the purposes of reliable electricity delivery. CAISO ancillary services markets include non-spinning and spinning contingency reserves, and regulation up and down.

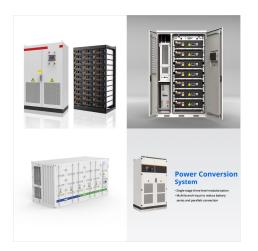
What has the CPUC done to improve energy storage?

Contributions to advancements of the state's evaluation frameworks. The CPUC, utilities, and stakeholders have put forth significant effort across many planning and procurement proceedings to identify, quantify, and monetize the multiple cost and benefit streams of energy storage.

Is CPUC energy storage a good choice for non-residential projects?

CPUC Energy Storage Procurement Study: Realized Benefits and Challenges Chapter 2 57 Energy value: Among all non-residential projects, we observe Clusters 1, 2, and 3 yield relatively high energy value (Figure 42) and associated GHG reduction value. Cluster 6 performs slightly worse due to its practice of night charging.





D.19-06-032, adopted June 27, 2019, implemented the AB 2868 energy storage program and investment framework and approved the AB 2868 applications, with modifications. The CPUC approved PG& E's request for \$6.4 million for its behind the meter thermal energy storage program, and requested the PG& E file a Tier 3 Advice Letter for final approval.



surplus energy at true-up: Wholesale price of energy: Wholesale price of energy: Wholesale price of energy: Basis of non-bypassable charges calculation: Net energy consumed (imports minus exports) in a year: Net energy consumed in a metered interval (1 hour for residential and 15 minutes for nonresidential customers) All energy imports



Public Advocates call on President Picker to avoid the continuation of "pause and delay" cover-up strategies at the California Public Utilities

Commission. DATELINE SAN DIEGO CALIFORNIA
-- January 15, 2015, 5:45 PM. Search for: Simply announcing that the Commission will comply with a criminal investigation and hiring an attorney to suggest





As a result of the positive findings, GVB and AMS Institute will work towards establishing a pilot test location for direct bus charging at Station Noord. AMS Institute worked closely with the DC Systems and Energy Conversion & Storage department at TU Delft on this project, with the results of the research coming from the work of dr. Ibrahim Diab.



The California Public Utilities Commission (CPUC), in ongoing efforts to ensure summer energy reliability and support a healthy environment, today approved an energy storage contract for Southern California Edison (SCE) to come online by August 1, 2022. In November 2021, the CPUC approved an 80 MW energy storage contract submitted by SDG& E



Last year, the California Public Utilities Commission identified potential reliability issues in the state's electric supply. Analysis revealed that the retirement of aging natural gas plants, the increasing levels of solar and wind energy that need to be integrated into the system and shifts in peak time power use would all contribute to potential issues on the system.





SGIP Energy Storage Impact Evaluation; 2021.
2018-2019 SGIP Impact Evaluation; 2019 SGIP
Energy Storage Impact Evaluation; 2020. SGIP
Renewable Fuel Use Report No.29. External
FinancialExamination Program Years 2017 & 2018.
2018 SGIP Advanced Energy Storage Impact
Evaluation. 2019. 2019 SGIP Energy Storage
Market Assessment and Cost



By using both models, the CPUC can incorporate a full-year view into its resource planning and identify energy storage needs. The 2019 planning cycle illustrated how this process works. When the CPUC ran the first model, it ???



CALIFORNIA PUBLIC UTILITIES COMMISSION 2023 ANNUAL REPORT / 1. President's Message and build-out a massive array of new energy storage capabilities, all while continuing to provide affordable, safe, and reliable utility services in the face of ever-more turbulent On April 27, 2023, the CPUC adopted Decision 23-04-057 (Investigation 22





NEM paired storage is now in effect for all of the three main California investor-owned utilities (IOUs). In February, the California Public Utilities Commission (CPUC) approved a decision that will allow customers with energy storage systems to receive credits for storage energy that is sent back to the grid, as long as the storage system charges entirely from solar.



Fluence launched its sixth generation of battery energy storage systems earlier this year: technology agnostic, modular systems aimed at the grid-scale, solar-plus-storage and commercial and industrial (C& I) market segments.Now, the company also has AMS" artificial intelligence (AI)-enabled optimised bidding software for energy storage and renewable energy ???



The California Public Utilities Commission (CPUC) has proposed the procurement of over 10GW of new energy resources, including 1GW of multi-day long-duration energy storage (LDES) and another 1GW of 12-hour-plus LDES. The Energy Storage Summit USA is the only place where you are guaranteed to meet all the most important investors





California Public Utilities Commission. Site Search. Home; Industries and Topics; Safety and Enforcement Division Report on Investigation into Aug. 12-20, 2020 Outages at Electric Generating Facilities May 19, 2022: CPUC Approves Energy Storage Contracts for SCE (CPUC Press Release) April 21, 2022:



Advanced Microgrid Solutions (AMS), SolarCity and Stem offer the following joint with the California Public Utilities Commission in Rulemaking 15-03-011 to develop appropriate standards and guidance for MUAs. MUAs reflect DER owners offering a combination of the CPUC's energy storage proceeding (CPUC Rulemaking 15-03-011) rather than

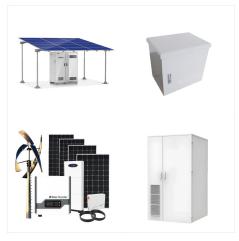


Aliso Canyon Investigation. On February 9, 2017, the CPUC opened a proceeding (called an Order Instituting Investigation; I.17-02-002) to determine the feasibility of minimizing or eliminating the use of Southern California Gas Company's Aliso Canyon Natural Gas Storage Facility while still maintaining energy and electric reliability for the Los Angeles region.





finally failed, all in violation of California Public
Utilities Code Section 451."4 The 2015 event
resulted in "the largest gas blowout in U.S.
history."5 The Commission-backed Root Cause
Analysis of the Uncontrolled Hydrocarbon Release
from Aliso Canyon SS-25 ("Root Cause Analysis")
came to a similar finding as the Commission"s



CPUC Scaling Up and Crossing Bounds iv 2023
Preferred System Plan An outcome of the PU's
2022???2023 Integrated Resource Plan cycle and
the adopted portfolio that meets a statewide 30
million metric tons



OAKLAND, California, August 5, 2024 ??? Lumen Energy Strategy, LLC has completed its second energy storage study for the California Public Utilities Commission (CPUC), required by CPUC Decision 13-10-040 and pursuant to California Assembly Bill 2514 (Skinner, 2010). The study report, Scaling Up and Crossing Bounds: Energy Storage in California, continues the CPUC's ???





Decision Enhances California's Energy Storage and Production by 10.6 GW. August 26, 2024 - SAN FRANCISCO ??? The California Public Utilities Commission (CPUC) today established an innovative centralized procurement strategy aimed at boosting the state's clean energy resources. This decision, which implements Assembly Bill 1373 (Stats. 2023, Ch.36), ???



Wildfire Incident Reports and Staff Investigation Reports. The Safety and Enforcement Division conducts staff investigations of wildfires involved with electric investor-owned utility (IOU) equipment to assess utility compliance with applicable rules and regulations.



AMS" California "water-energy nexus" project will save Long Beach Water Department US\$150k a year. Southern California Edison is mandated by the California Public Utilities" Commission (CPUC) to deploy a total of 1.325GW between them by 2024. Energy-Storage.News reported on a planned 500MW pumped hydro storage plant in San Diego





In response to increased State goals and targets to reduce greenhouse gas (GHG) emissions, meet air quality standards, and achieve a carbon free grid, the California Public Utilities Commission (CPUC), with authorization from the California Legislature, continues to evaluate options to achieve these goals and targets through several means including through ???



CIEE has developed, and now manages, a program for supporting the California Public Utilities
Commission's (CPUC) goals. The focus of the program is broad, with tasks spanning energy efficiency, energy storage, electric vehicles, financial and behavioral studies, and lifecycle analysis.



The California Public Utilities Commission (CPUC) has approved new projects by the state's three investor-owned utilities, including nine battery energy storage system (BESS) facilities proposed by PG& E totalling 1.6GW/6.4GWh. The CPUC has also approved the 2020 energy storage plans for all three investor-owned utilities, PG& E, SDG& E and





The study finds that the early energy storage pilots, demonstration projects, and first-of-its-kind procurements successfully enabled a scalable and cost-effective energy storage portfolio that ???



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Utility Arizona Public Service (APS) has completed an investigation into what has been considered as one of the most significant battery storage fires in US history which injured four firemen in Surprise, Arizona, on the night of Friday, 17 April 2019. personnel to execute them. While today's energy storage safety codes and standards