

STATE COUNCIL ENERGY STORAGE APPLICATION SITE



Does state energy storage support decarbonization? A recent report from the Clean Energy States Alliance highlights best practices, identifies barriers, and underscores the need to expand state energy storage policymaking to support decarbonization in the United States.

Decarbonization is the move away from fossil fuel resources and toward renewable energy.



Which states are developing energy storage policy? California and New York are cited as examples of states with very advanced and sophisticated policy measures. Many others are beginning to assess energy storage policy needs. What motivates a state to develop energy storage policy? The Best Practices report says it varies.



What are the different types of energy storage policy? Approximately 16 states have adopted some form of energy storage policy, which broadly fall into the following categories: procurement targets, regulatory adaptation, demonstration programs, financial incentives, and consumer protections. Below we give an overview of each of these energy storage policy categories.



U.S. Energy Storage Operational Safety Guidelines December 17, 2019
The safe operation of energy storage applications requires comprehensive assessment and planning for a wide range of potential operational hazards, as well as the coordinated operational hazard mitigation efforts of all stakeholders in the lifecycle of a system from



2 ? The State of Washington Energy Facility Site Evaluation Council (EFSEC or Council) provides a "one-stop" siting process for major energy facilities in the State of Washington. EFSEC coordinates all evaluation and licensing steps for siting certain energy facilities in Washington.

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key state energy storage policy priorities and the challenges being encountered by some of the leading decarbonization states, with several case studies. The report is based on the idea that dramatic expansion of renewable energy resources is essential to the decarbonization of the US power sector, and that the inherent variability



New York State Energy Research and Development Authority President and CEO Doreen M. Harris said, "Energy storage is crucial as New York works to decarbonize our electric grid, manage increased energy loads, and optimize the integration and use of clean, renewable energy. The roadmap approved today by the New York State Public Service



In May 2023, Maryland became the 11th and latest state to enact an energy storage target, with a goal to deploy 3 GW of storage capacity by 2033. The new law requires the Maryland Public Service Commission to establish the Maryland Energy Storage Program by July 1, 2025 and provides for incentives for the development of energy storage.



The Council is responsible for balancing the need for adequate and reliable public utility services at the lowest reasonable cost to consumers with the need to protect the environment and ecology of the state. The Council generally has jurisdiction over the siting of electric transmission lines and electric substations with a design capacity of



Energy Storage in Pennsylvania. Recognizing the many benefits that energy storage can provide Pennsylvanians, including increasing the resilience and reliability of critical facilities and infrastructure, helping to integrate renewable energy into the electrical grid, and decreasing costs to ratepayers, the Energy Programs Office retained Strategen Consulting, ???

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On April 18, 2024, the California Energy Commission notified the City of San Juan Capistrano of its receipt of an Opt-in Application for the Compass Energy Storage Project. The State of California's Opt-in Certification Program is a streamlined application process in which the Commission reviews the project proposal and can require the



Energy Storage Integration Council (ESIC) Energy Storage Test Manual. EPRI, Palo Alto, CA: 2021. 3002021710. of multiple state variables???including stateof-charge, state- of-health, temperature, humidity, and - support the safe, reliable, and cost -effective application of energy storage to the electric power system. 2. The Testing and



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 power station, with a



of storage capacity, was found by the Council to not present any "substantial adverse environmental energy storage in the state, including adopting an income tax credit for the costs of installing an energy (Application Guide for a Renewable Energy Facility, 2010) 15 (Re: Petition No. 1181, 2015)



Energy storage resources are becoming an increasingly important component of the energy mix as traditional fossil fuel baseload energy resources transition to renewable energy sources. There are currently 23 states, plus the District of Columbia and Puerto Rico, that have 100% clean energy goals in place. Storage can play a significant role in achieving these goals ???

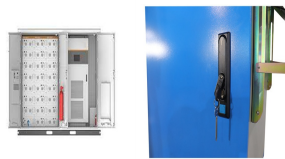
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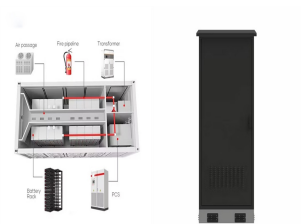
Solid-state hydrogen storage technology has emerged as a disruptive solution to the "last mile" challenge in large-scale hydrogen energy applications, garnering significant global research



Energy Resilience in the Public Sector ??? This landing page from DOE offers resources and tools for state and local governments on energy and resilience. Energy Storage Implementation Guide ??? This guide from the Energy Storage Integration Council covers the complete life cycle of an energy storage project. Energy Transitions Playbook



The different types of storage technologies and applications are shown in figure 1 below. Figure 1: Energy Storage Applications. Source: CSIRO Renewable Energy Storage Roadmap. Applications for energy storage and current limitations are outlined as: Major grids: These will need a substantial storage capacity as dispatchable generation leaves



Texas Energy Fund Programs. The Texas Energy Fund (TEF) will provide funding opportunities for electric generation projects???both inside and outside of the Electric Reliability Council of Texas (ERCOT) power region???through four programs based on an application process and award system developed by the Public Utility Commission of Texas.



First established in 2020 and founded on EPRI's mission of advancing safe, reliable, affordable, and clean energy for society, the Energy Storage Roadmap envisioned a desired future for energy storage applications and industry practices in 2025 and identified the challenges in realizing that vision.

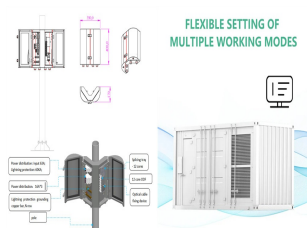
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The Department of Energy (DOE) Office of Electricity (OE) today announced that applications are now open for two voucher opportunities totaling \$1M in OE technical assistance for potential recipients. Longer duration storage technologies will transform the electric grid to meet the nation's growing need for clean, reliable, efficient, cost



This table includes all existing state energy storage procurement mandates, targets, and goals. These terms describe various ways states may set an intention to attain a specified level of energy storage deployment by a specific date, and the role of regulated electric utilities in helping realize that intention.



Project Status. The Goldeneye Energy Storage project filed its Application for Site Certificate (ASC) with the State of Washington Energy Facility Site Evaluation Council (EFSEC), initiating a full public review of the battery energy storage system (BESS) proposed to be located near the existing Sedro-Woolley electrical substation in Skagit County, Washington.



Energy Storage Integration Council (ESIC) Energy Storage Implementation Guide. EPRI, Palo Alto, CA: 2021. 3002021706. iii the identification of grid needs to characterize applications and services. From the perspective of an electric utility stakeholder, there are several ways energy storage could be used to minimize, defer, or avoid costs



FIVE STEPS TO ENERGY STORAGE fi **INNOVATION INSIGHTS BRIEF**
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Energy storage is key for unlocking intermittency of renewables and enabling the grand transition; Energy storage needs to be considered as part of energy flexibility in general and planned as part of distributed energy resources (DER). Even if energy ???



News media contact: Matt Helms 517-284-8300 Customer Assistance: 800-292-9555 The Michigan Public Service Commission today adopted application instructions and procedures that electric providers and independent power producers must use when seeking the Commission's approval for siting of renewable energy projects under Public Act (PA) 233 of ???



ANNEX 2: STATE OF STORAGE TECHNOLOGIES 43 ANNEX 3: ENERGY STORAGE APPLICATIONS 55 ANNEX 4: ACRONYM REFERENCE SHEET 58 INTERVIEWEE CREDITS 59 PROJECT TEAM 60. CAES = Compressed-air energy storage Note: The Council has reviewed available literature to build this table. In our review, technology specifica-



fossil thermal application. (3) Chemical Energy Storage consists of several different options, as described in the report. (4) While conventional hydrogen and ammonia production processes are mature, this report considers newer technologies that are ???



Defines BESS, but not as an "energy facility" generally: HB 4015 provides a statutory definition of BESS: "an energy storage system that, other than for personal, noncommercial use: (a) Collects energy from the electric grid or an energy generation facility; (b) Uses rechargeable batteries to retain and store the energy for a period of

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BTM energy storage systems then optimize stored energy through peak shaving and demand response to improve energy reliability, reduce costs, and support a more sustainable energy infrastructure. Peak shaving reduces peak electricity demand by using stored energy to power internal loads, thereby decreasing the energy required from the utility



Thermochemical energy storage materials and reactors have been reviewed for a range of temperature applications. For low-temperature applications, magnesium chloride is found to be a suitable



The Long Duration Energy Storage (LDES) program invests in projects that accelerate the implementation of long duration energy storage solutions to increase the resiliency and reliability of our energy infrastructure and meet the state's energy and climate goals.



The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof. i . Energy Storage Grand Challenge Energy Storage Market Report 2020 December 2020 . Nascent ???



Hydrogen is a versatile energy storage medium with significant potential for integration into the modernized grid. Advanced materials for hydrogen energy storage technologies including adsorbents, metal hydrides, and chemical carriers play a key role in bringing hydrogen to its full potential. The U.S. Department of Energy Hydrogen and Fuel Cell ???