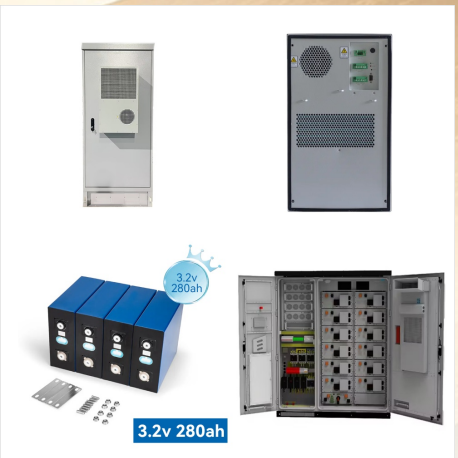
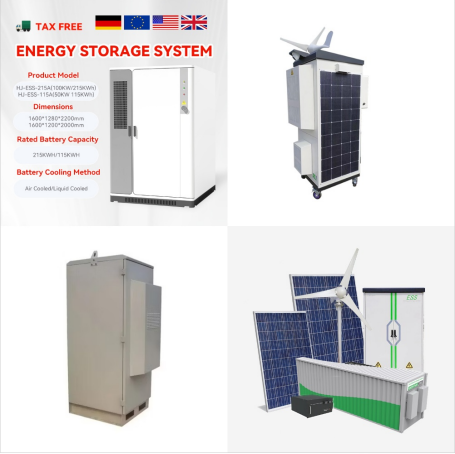
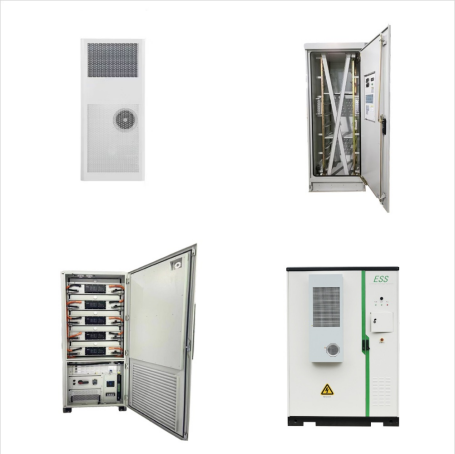


As part of the U.S. Department of Energy's (DOE"s) Energy Storage Grand Challenge (ESGC), DOE intends to synthesize and disseminate best-available energy storage data, information, and analysis to inform commercialization, manufacturing, valuation, and workforce challenges to position the United States for global leadership in the

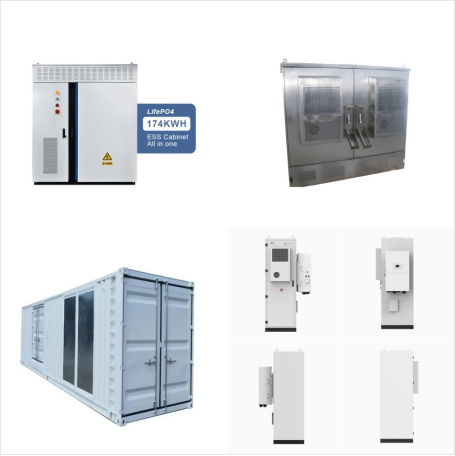


Contents Foreword 03 01 Why energy storage? 04 02 Energy storage applications 05 03 Energy storage technologies 07 04 The global energy storage market 09 05 Impact on demand for critical metals 10 06 Barriers and challenges 11 07 Country Snapshots 13 08 United States 15 09 China 19 10 European Union 22 11 Germany 27 12 United Kindgom 31 13 Japan 34 14 Australia 37

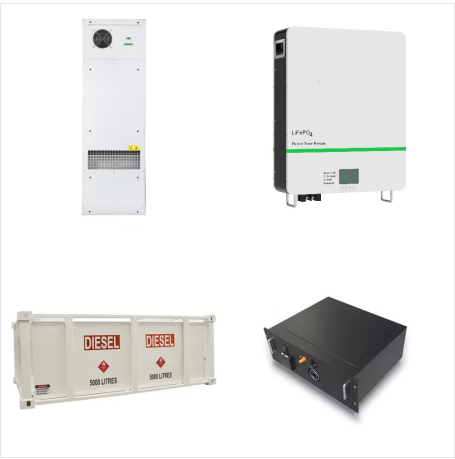


The United States Department of Energy's Global Energy Storage Database (GESDB) is a free-access database of energy storage projects and policies funded by the U.S. DOE, Office of Electricity, and Sandia National Labs. In 2013, the database covered 409 projects; it aimed to cover all energy storage projects globally by 2014. By 2020, it covered 1,686 projects, comprising 22 gigawatt power of US grid storage ca???

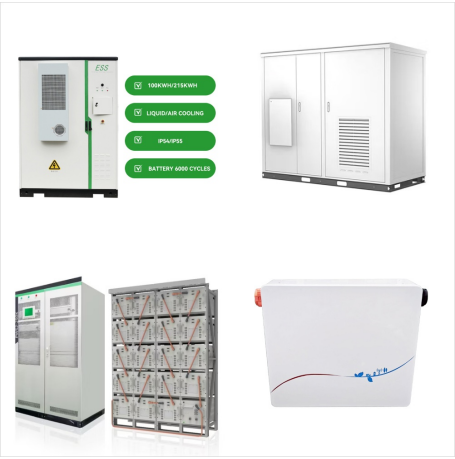
UNITED STATES DEPARTMENT OF ENERGY GLOBAL ENERGY STORAGE DATABASE



The Department of Energy's (DOE) Energy Storage Grand Challenge (ESGC) is a comprehensive program to accelerate the development, commercialization, and utilization of next-generation energy storage technologies and sustain American global leadership in energy storage.

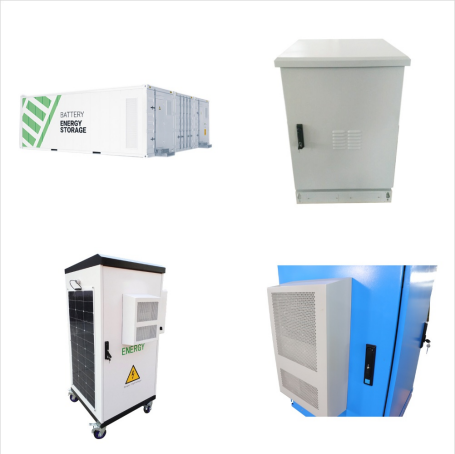


WASHINGTON, D.C. ??? Today, the U.S. Department of Energy (DOE) released the Energy Storage Grand Challenge Roadmap, the Department's first comprehensive energy storage strategy.Announced in January 2020 by U.S. Secretary of Energy Dan Brouillette, the Energy Storage Grand Challenge (ESGC) seeks to create and sustain American leadership in ???

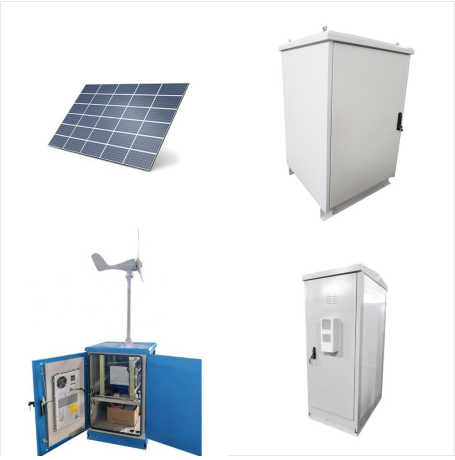


So I am quite ??? and as I said, the mood at CERAWeek was quite confident about the resilience of global energy markets at this particular moment in time, in part due to the work of American energy producers, as the United States has emerged as the world's largest oil and gas exporter. MODERATOR: We will now take a couple questions from Zoom

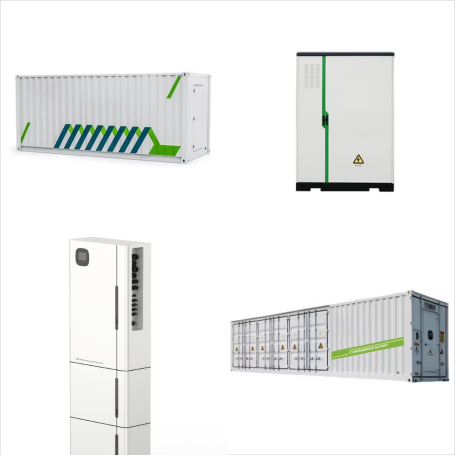
UNITED STATES DEPARTMENT OF ENERGY GLOBAL ENERGY STORAGE DATABASE



Department of Energy Washington, DC 20585 imre.gyuk@hq.doe.gov Cedric Christensen Strategen Consulting Berkeley, CA 94704 cchristensen@strategen Abstract??? The U.S. Department of Energy (U.S. DOE) Global Energy Storage Database (GESDB) is an openly accessible archive of electrical energy storage projects across the electric

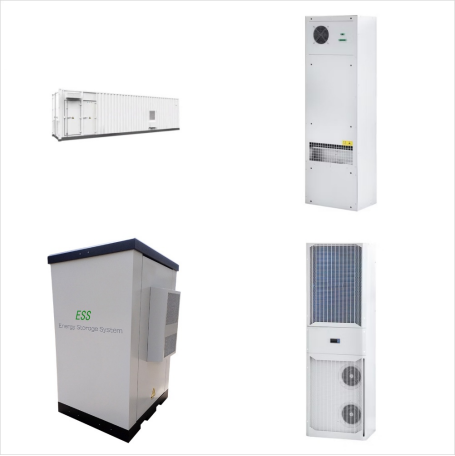


Electricity Storage in the United States. According to the U.S. Department of Energy, the United States had more than 25 gigawatts of electrical energy storage capacity as of March 2018. Of that total, 94 percent was in the form of pumped hydroelectric storage, and most of that pumped hydroelectric capacity was installed in the 1970s. The six

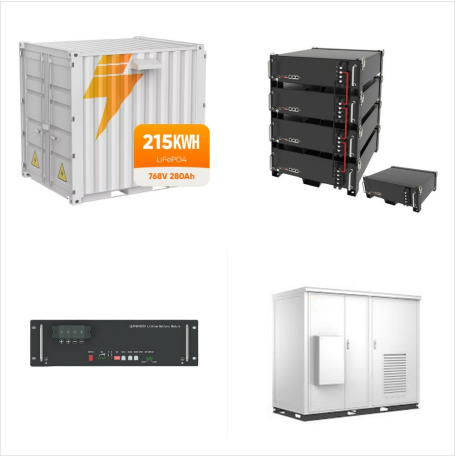


) and 160 gigawatt s (GW) of long -duration energy storage (LDES) are provided by technologies such as pumped storage hydropower (PSH) (U.S. Department of Energy, 2020) 1. As the United States and the world increase electrificat oi n as part of eff orts to decarbonize energy use, the need for reliable and cost -effective energy

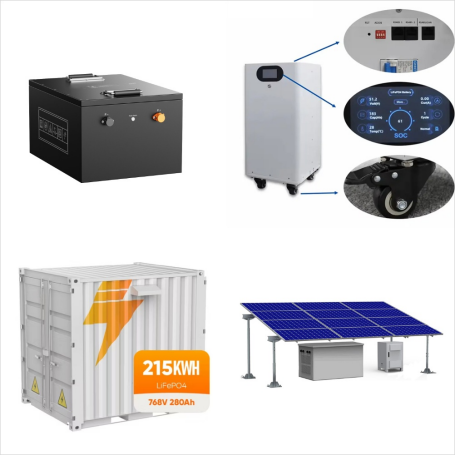
UNITED STATES DEPARTMENT OF ENERGY GLOBAL ENERGY STORAGE DATABASE



The U.S. Department of Energy (U.S. DOE) Global Energy Storage Database (GESDB) is an openly accessible archive of electrical energy storage projects across the electric grid infrastructure and a global repository of relevant policies. The data included in the archive has been fully validated. The GESDB represents a dynamic catalogue with a continuously updated ???

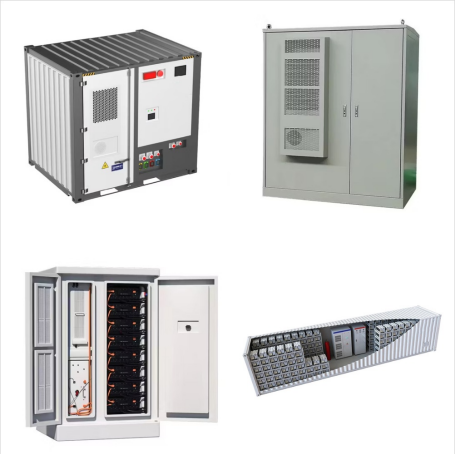


, The United States (U.S.) Department of Energy's (DOE) Carbon Transport and Storage Program has been working with projects, industry, universities, and other government agencies to preserve, publish and curate carbon capture and storage (CCS) data.

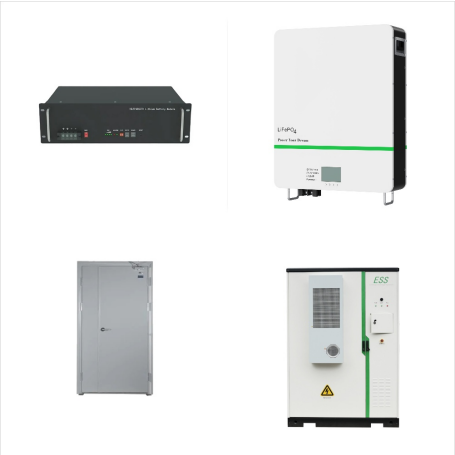


Key updates from the Summer 2024 Quarterly Solar Industry Update presentation, released August 20, 2024:. Global Solar Deployment. About 560 gigawatts direct current (GW dc) of photovoltaic (PV) installations are projected for 2024, up about a third from 2023.; The five leading solar markets in 2023 kept pace or increased PV installation capacity in the first half of ???

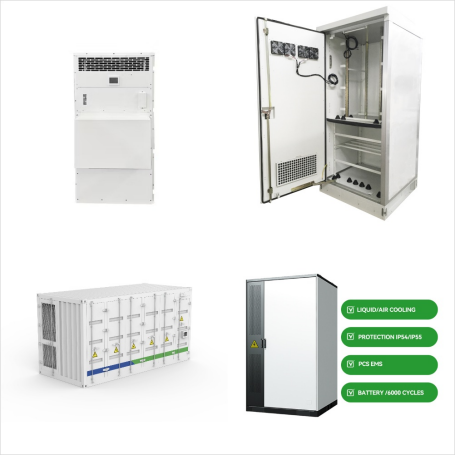
UNITED STATES DEPARTMENT OF ENERGY GLOBAL ENERGY STORAGE DATABASE



As part of the Department of Energy's (DOE) Energy Storage Grand Challenge (ESGC), DOE intends to synthesize and disseminate best available energy storage data, information, and analysis to inform decision-making and accelerate technology adoption. and workforce challenges to position the United States for global leadership in the energy

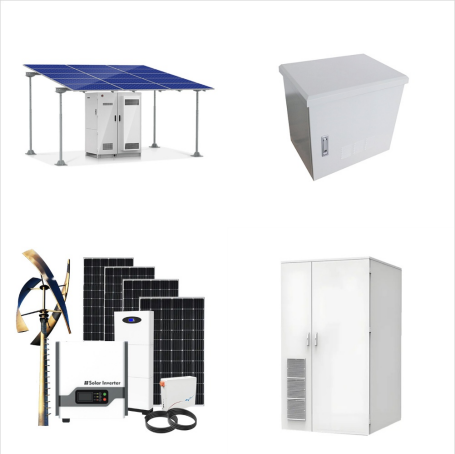


Energy Storage Activities in the United States Electricity Grid Page 3 Energy storage in the U.S. electric power grid totals just over 23 GW, with 96 percent provided by existing pumped hydro systems. The following chart estimates active energy storage systems in the United States.

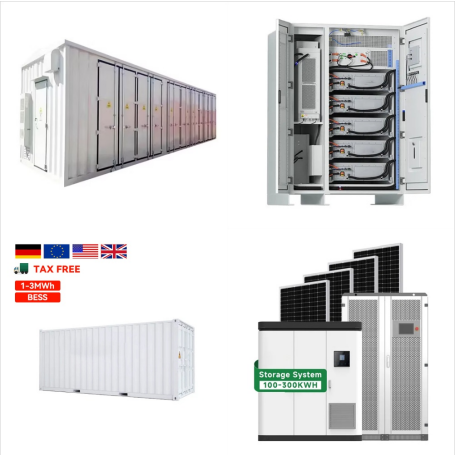


Energy Storage . An Overview of 10 R& D Pathways from the Long Duration LDES deployments, the United States Department of Energy (DOE) established the . Long . Duration Storage Shot a technologies and sustain American global leadership in energy storage.

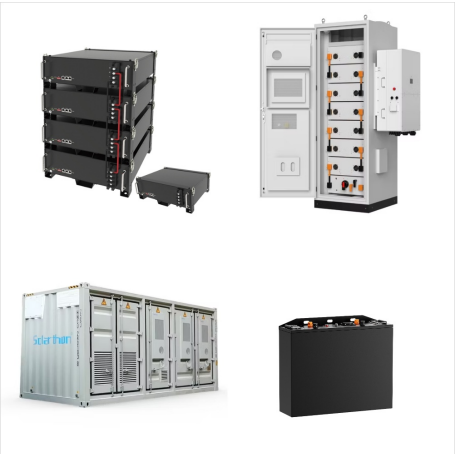
UNITED STATES DEPARTMENT OF ENERGY GLOBAL ENERGY STORAGE DATABASE



Office of Fossil Energy United States Department of Energy Washington, DC 20585. HYDROGEN STRATEGY ??? Providing large-scale energy storage capacity using hydrogen for both transportation and generation needs Global hydrogen production is approximately 70 MMT, with 76% produced from natural gas via SMR, 22% through

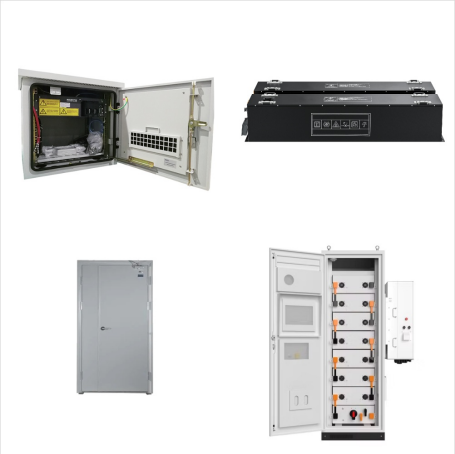


WASHINGTON, D.C. ??? The U.S. Department of Energy (DOE) today released America's first comprehensive plan to ensure security and increase our energy independence.The sweeping report, "America's Strategy to Secure the Supply Chain for a Robust Clean Energy Transition," lays out dozens of critical strategies to build a secure, resilient, and diverse ???

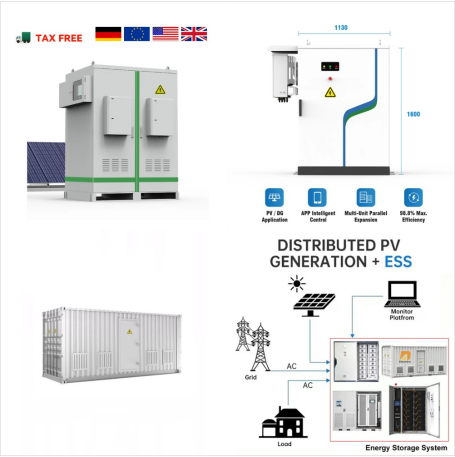


The Department of Energy's (DOE) Energy Storage Grand Challenge (ESGC) is a comprehensive program to accelerate the development, commercialization, and utilization of next-generation energy storage technologies and sustain American global leadership in energy storage.

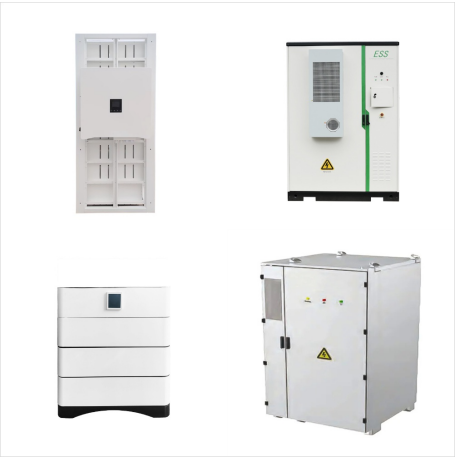
UNITED STATES DEPARTMENT OF ENERGY GLOBAL ENERGY STORAGE DATABASE



The U.S. Department of Energy (U.S. DOE) Global Energy Storage Database (GESDB) is an openly accessible archive of electrical energy storage projects across the electric grid infrastructure and a global repository of relevant policies. The data included in the archive has been fully validated. The GESDB represents a dynamic catalogue with a continuously updated ???

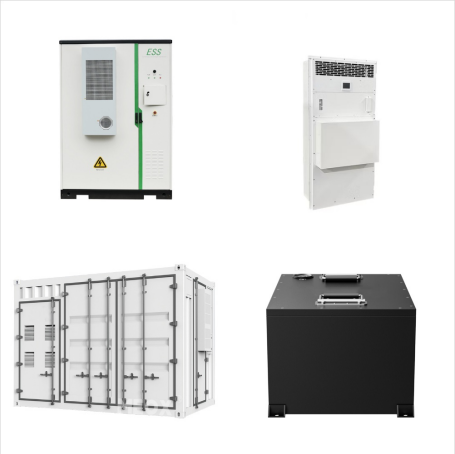


As America moves closer to a clean energy future, energy from intermittent sources like wind and solar must be stored for use when the wind isn''t blowing and the sun isn''t shining. The Energy Department is working to develop new storage technologies to tackle this challenge -- from supporting research on battery storage at the National Labs, to making investments that take ???

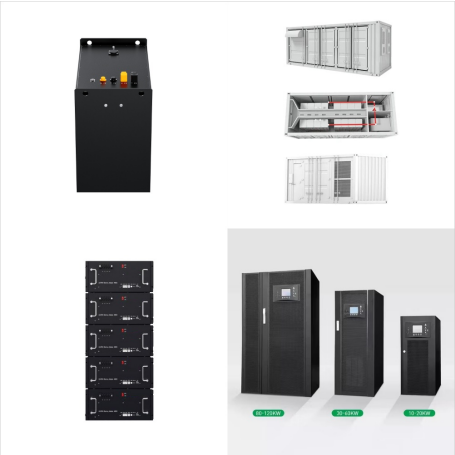


The U.S. Department of Energy (DOE) Energy Storage Handbook (ESHB) is for readers interested in the fundamental concepts and applications of grid-level energy storage systems (ESSs). The ESHB provides high-level technical discussions of current technologies, industry standards, processes, best practices, guidance, challenges, lessons learned, and projections ???

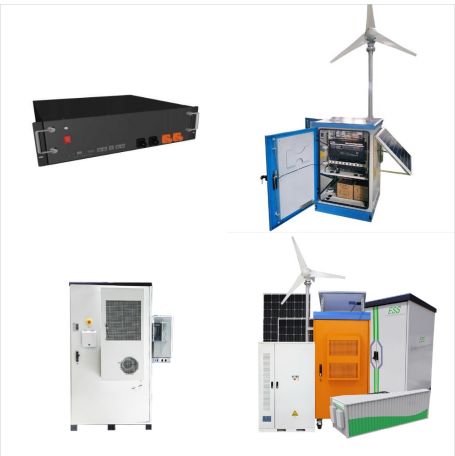
UNITED STATES DEPARTMENT OF ENERGY GLOBAL ENERGY STORAGE DATABASE



China, Japan, the United States, South Korea, and the United Kingdom. Sources: U.S. Department of Energy Global Energy Storage Database, Navigant Country Forecasts for Utility-Scale Energy Storage KEY FACTS More than half of the global grid-scale deployments in the past five years have come from EEI member companies.1

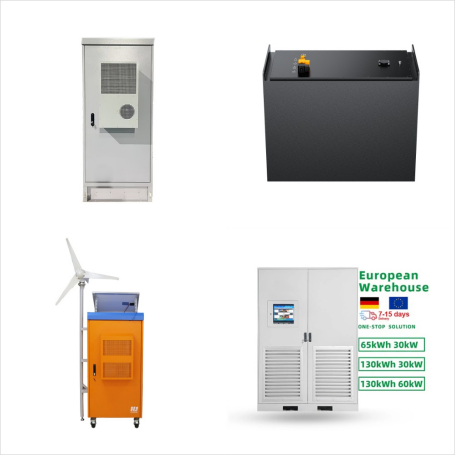


The Department of Energy (DOE) Global Energy Storage Database counts nearly 700 storage projects announced, operational, or under construction across the United States that rely on myriad technologies.



OE's Energy Storage Program. As energy storage technology may be applied to a number of areas that differ in power and energy requirements, OE's Energy Storage Program performs research and development on a wide variety of storage technologies. This broad technology base includes batteries (both conventional and advanced), electrochemical

UNITED STATES DEPARTMENT OF ENERGY GLOBAL ENERGY STORAGE DATABASE



Sandia National Lab. (SNL-NM), Albuquerque, NM (United States) Sponsoring Organization: USDOE Office of Electricity (OE), Advanced Grid Research & Development. Power Systems Engineering Research DOE Contract Number: AC04-94AL85000 OSTI ID: 1240839 Report Number(s): SAND2015-1450PE; 567290 Country of Publication: United States ???