The energy transition poised for takeoff in the United States amid record investment in wind, solar and other low-carbon technologies is facing a serious obstacle: The volume of projects has





Rapidly accelerating the deployment of renewable energy projects is paramount for the United States to meet its net zero by 2050 climate goal This deployment will only succeed if we minimize impacts to natural and working lands, ensure equitable benefit sharing and address communities" concerns about renewable energy impacts.



Innovation is often more about chasing after the shiny and new rather than improving on existing technologies. Nevertheless, the looming challenge of evolving from fossil fuels to renewable energy faces the immutable laws of physics and chemistry ??? and, ironically enough, environmental hurdles ??? that may be overlooked by today's energy experts and policy ???





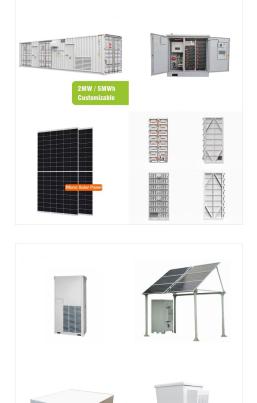
In the United States, the greatest potential wind energy resources are in the Midwest and along the two coasts, 7 while the greatest solar energy resources are in the Southwest and in Florida. 8 New transmission lines will be needed to carry the electricity from the areas where the renewable resources are most plentiful to distant load centers.

Such new opportunities and the increasing need for greater energy storage may lead policymakers to reassess the potential of PHES in the United States, particularly for coupling with intermittent renewable energy sources such as wind and solar power. rser2010.pdf



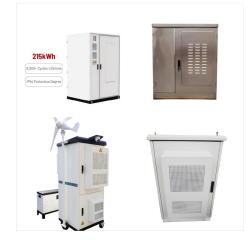
A new report by the National Renewable Energy Laboratory (NREL) examines the types of clean energy technologies and the scale and pace of deployment needed to achieve 100% clean electricity, or a net-zero power grid, in the United States by 2035. This would be a major stepping stone to economy-wide decarbonization by 2050.





In "Quantifying the Challenge of Reaching a 100% Renewable Energy Power System for the United States," analysts from the U.S. Department of Energy's (DOE"s) National Renewable Energy Laboratory (NREL) and DOE's Office of Energy Efficiency and Renewable Energy (EERE) evaluate possible pathways and quantify the system costs of

This paper attempts to identify the barriers to investment in renewable energy projects in South East Europe, including investment in renewable generation and transmission investments (VAT) treatment for energy with that in EU member states. Harmonization of tax treatment would enhance the procedure of establishing integrated energy market.



Severin Borenstein and Ryan Kellogg The United States faces the challenge of dramatically reducing carbon emissions while simultaneously ensuring the reliable supply of on-demand energy services that its residents have come to expect. Federal policy will be instrumental in driving investments in energy infrastructure that will be required to transition ???





ENERGY STORAGE SYSTEM

As concerns about global warming grow, societies are increasingly turning to the use of intermittent renewable energy resources, where energy storage becomes more and more important.Pumped-hydro energy storage (PHES) is the most established technology for utility-scale electricity storage. Although PHES has continued to be deployed globally, its ???

Huge swaths of the country are pivoting from fossil fuels, toward wind, solar and other renewables. New York Times climate reporter Brad Plumer discusses this progress and roadblocks that lie ahead.



SOCIAL BARRIERS TO RENEWABLE ENERGY LANDSCAPES \* MARTIN J. PASQUALETTI. Professor of geography at Arizona State University, Tempe, Arizona 85287; [pasqualetti@asu]. Drivers and barriers to public acceptance of future energy sources and grid expansion in the United States, Renewable and Sustainable Energy Reviews, ???





Overview. Renewable energy is electricity generated by fuel sources that restore themselves over a short period of time and do not diminish. Although some renewable energy technologies have an impact on the environment, renewables are considered environmentally preferable to conventional sources and, when replacing fossil fuels, have significant potential ???

This paper discusses the main barriers hindering investment in clean energy production, highlights crucial incentives that could speed up investment processes, and examines several necessary strategies for the transition from fossil-fuel-based energy to renewable sources. The United States (US) has the largest installed capacity in the



Moreover, in states with a renewable portfolio standard (DSIRE, 2013a, DSIRE, 2013b), solar service firms can generate additional revenues from the sale of Renewable Energy Certificates (RECs). Finally, solar service firms can cash in from a variety of other solar incentives offered by the federal government as well as some states





Native lands in what is called the United States have vast renewable energy resources. If focused on advancing sovereignty and self-determination, renewable energy development could alleviate harm from ongoing processes of settler colonialism and from the climate crisis, experienced by Native peoples first and worst.



Clunky permitting processes are keeping U.S. renewable energy projects in gridlock. Experts on energy and politics discussed the challenges, opportunities, and strategies to equitably accelerate the transition away from ???



We identified 53 utility-scale wind, solar, and geothermal energy projects that were delayed or blocked between 2008 and 2021 in 28 U.S. states. Using multi-level qualitative analysis, we ???





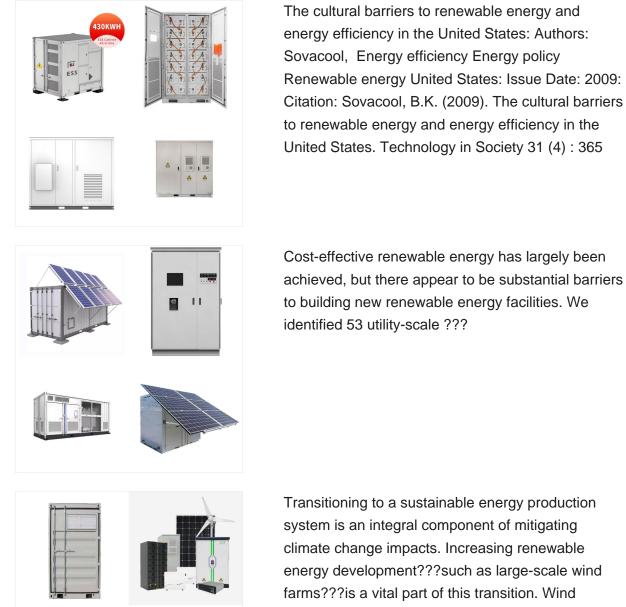
Place attachment and social barriers to large???scale renewable energy development: a social???ecological systems analysis of a failed wind energy project in the south???central United States Carrie Pavlowsky1 ? Jennifer Koch1 ? Travis Gliedt 1 Received: 11 October 2022 / Revised: 25 January 2023 / Accepted: 28 January 2023 / Published online

India has tremendous energy needs and increasing difficulty in meeting those needs through traditional means of power generation. On July 30 and 31, 2012, the world's largest blackout ??? The Great Indian Outage, stretching from New Delhi to Kolkata ??? occurred due to the failure of the northern power grid and affected nearly 700 million people (twice the population ???



WASHINGTON, D.C.???As part of the Biden-Harris Administration's Investing in America agenda, the U.S. Department of Energy (DOE) today announced the selection of six projects totaling \$11.6 million funded by the Inflation Reduction Act in the second round of a program that will improve planning, siting, and permitting processes for large-scale renewable ???







energy development???such as large-scale wind energy development is often controversial due to local pushback to the proposed installations. This phenomenon of local opposition is ???





Overcoming barriers to renewable energy diffusion: business models for customer-sited solar photovoltaics in Japan, Germany and the United States. Japan and the United States. Results show how the deployment of customer-sited PV systems in these three countries has been enabled and catalysed through distinctively different business models



But a successful green energy transition relies on a patchwork of large-scale renewable energy sites for wind and solar distributed across rural areas. Although these facilities can be constructed much faster than their ???



Despite hosting nearly 8% of the United States" wind energy potential, only one utility-scale wind farm exists on tribal lands. Several barriers hindering tribes" capacity to harness their lands" wind potential have been identified, including federal bureaucratic inefficiencies, difficulties securing financing, an inability to capitalize on the Federal Production Tax Credit, and internal





What role does renewable energy play in the United States? Until the mid-1800s, wood was the source of nearly all the nation's energy needs for heating, cooking, and lighting. From the late 1800s until today, fossil fuels???coal, petroleum, and natural gas???have been the primary sources of energy. Hydropower and wood were the most used



California; shift to burgeoning wind energy industry in the United States, Scotland, and Mexico; and end with the emerging controversies over solar energy develop- BARRIERS TO RENEWABLE ENERGY 205 Fig. 3- Development of California's The Geysers geothermal site must adjust to the challenges of topography, unstable slopes, and nearby resorts.