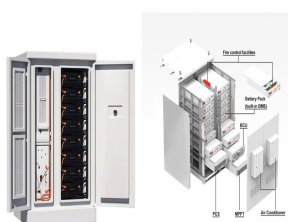


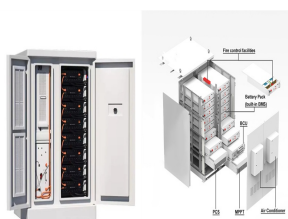
# BUILD A 10 BILLION ENERGY STORAGE INDUSTRY CHAIN



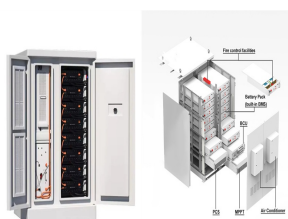
Why are battery energy storage systems becoming more popular? In Europe, the incentive stems from an energy crisis. In the United States, it comes courtesy of the Inflation Reduction Act, a 2022 law that allocates \$370 billion to clean-energy investments. These developments are propelling the market for battery energy storage systems (BESS).



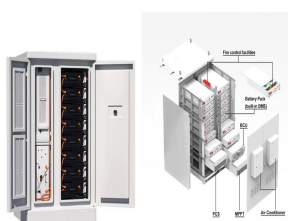
How is the government boosting demand for grid battery storage? Through a combination of additional tax credits, infrastructure spending, and loan guarantees, the administration is intervening across the power sector to encourage demand for grid battery storage.



Which states encourage battery manufacturing & industries along the battery supply chain? However, several states, particularly those along what's known as the "battery belt" have policies and strategies in place to encourage battery manufacturing and industries along the battery supply chain. The exception is domestic industry leader Tesla, which operates a battery plant in Sparks, Nevada, and a plant in Fremont, California.

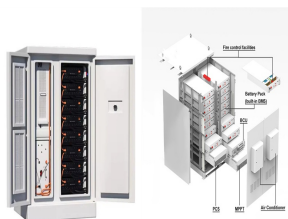


How did energy storage grow in 2022 & 2023? The US utility-scale storage sector saw tremendous growth over 2022 and 2023. The volume of energy storage installations in the United States in 2022 totaled 11,976 megawatt hours (MWh), a figure surpassed in the first three quarters of 2023 when installations hit 13,518 MWh by cumulative volume.

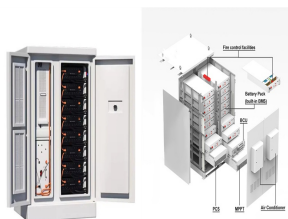


What if the US cannot establish a secure supply chain for lithium battery technology? According to the report, if the U.S. cannot establish a secure and stable supply chain for lithium battery technology within its borders, other countries will enjoy the economic growth and job creation that lithium battery technology will create.

# BUILD A 10 BILLION ENERGY STORAGE INDUSTRY CHAIN



Why is DOE funding a lithium-ion battery supply chain? ???With funding from Bipartisan Infrastructure Law,we???re making it possible to establish a thriving battery supply chain in the United States.??? With the global lithium-ion battery market expected to grow rapidly over the next decade,DOE is making it possible for the United States to be prepared for market demand.



WASHINGTON, D.C. ??? The Biden-Harris Administration today released the U.S. National Clean Hydrogen Strategy and Roadmap, a comprehensive framework for accelerating the production, processing, delivery, storage, and use of clean hydrogen???a versatile and flexible energy carrier that can be produced with low or zero carbon emissions. Achieving commercial ???



In June 2023, China achieved a significant milestone in its transition to clean energy. For the first time, its total installed non-fossil fuel energy power generation capacity surpassed that of fossil fuel energy, reaching 50.9%.. China's renewable energy push has ignited its domestic energy storage market, driven by an imperative to address the intermittency and ???



WASHINGTON, D.C. ??? The U.S. Department of Energy (DOE) today announced new immediate policy actions to scale up a domestic manufacturing supply chain for advanced battery materials and technologies.These efforts follow the 100-Day review of advanced batteries???directed by President Biden's Executive Order on America's Supply Chains???which ???



Key Trends Shaping the 2024 Energy Storage Supply Chain. Jeremy Furr, Senior VP at Stryten Energy, outlines three pivotal trends driving the domestic energy storage sector toward a cleaner, more resilient future. "These vital industries contribute nearly \$33 billion to the U.S. economy, support more than 120,000 American jobs and

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And the bottleneck problems and development trends of the hydrogen energy industry chain are also summarized and viewed. Jidian Corporation spent 6 billion CNY to build the integration demonstration project of Da According to estimates, when the peak-valley electricity price difference reaches 0.7 CNY/kWh, the yield of energy storage



At the RIL Annual General Meet in 2021, Chairman and Managing Director Mukesh D. Ambani announced an investment of over Rs 75,000 crore (USD 10 billion) in building the most comprehensive ecosystem for New Energy and New Materials in India to secure the promise of a sustainable future for generations to come.



development of a domestic lithium-battery manufacturing value chain that creates . equitable clean-energy manufacturing jobs in America, building a clean-energy . economy and helping to mitigate climate change impacts. The worldwide lithium-battery market is expected to grow by a factor of 5 to 10 in the next decade. 2



WASHINGTON, D.C. ??? Today, two years after President Biden signed the Bipartisan Infrastructure Law, the U.S. Department of Energy (DOE) announced up to \$3.5 billion from the Infrastructure Law to boost domestic production of advanced batteries and battery materials nationwide. As part of President Biden's Investing in America agenda, the funding will ???



But a 2022 analysis by the McKinsey Battery Insights team projects that the entire lithium-ion (Li-ion) battery chain, from mining through recycling, could grow by over 30 percent annually from 2022 to 2030, when it would reach a value of more than \$400 billion and a market size of 4.7 TWh. 1 These estimates are based on recent data for Li-ion

# BUILD A 10 BILLION ENERGY STORAGE INDUSTRY CHAIN



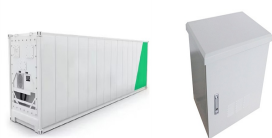
The CCUS industry, through the Carbon Capture and Storage Association (CCSA), published CCUS Supply Chain Good Practice Guidance in July 2023, [footnote 15] setting out its strategy to build a



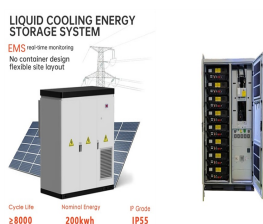
Lithium-based energy storage will be one of the key technologies of the 21st century. Lithium batteries will power the majority of vehicles manufactured over the next 50 years and will be ???



25 30 35 40 Energy Storage Grand Challenge Energy Storage Market Report 2020 December 2020 . List of Figures . Figure 1. Global energy storage market .. 6 Figure 2. Projected global annual transportation energy storage deployments 7 Figure 3.



Agribusiness Industry; Building Materials Industry; Chemical Industry; Forest Products, Paper, and Packaging electric vehicles and energy storage systems on the electrical grid supply. In fact, lithium batteries will be one of the key technologies shaping the 21st century. This would add \$17 billion in direct value and 40,000 direct jobs.



Law firm Morgan Lewis recently referred to clean energy storage as "the technology that will cash the checks written by the renewable energy industry," and went on to say that "the global

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According to the data of China Electric Power Energy Storage Industry Development Alliance, by 2025, China's electric power energy storage market size will reach more than 40 billion yuan. The energy storage industry chain can be divided into three parts: upstream, midstream, and downstream. Upstream



IRA investment could also be significant for the industry over the next decade, including an estimated US\$287 billion in tax credits and funding (e.g., loans and grants) that could broadly support clean energy deployment, component manufacturing, electric grid investment, transportation electrification, clean hydrogen production, residential



Solar and Storage Industry Congratulates Senator Jacky Rosen on Her Re-Election Victory. Key U.S. Solar and Energy Storage Manufacturing Stats: In the PV module supply chain, it can take years to build new facilities. The further up the supply chain (further left on the graphic above), the longer the building time, which includes steps



China has released a slew of policies to turbocharge the energy storage industry, which insiders believe will bring huge opportunities to enterprises in the country. Power generation firms are encouraged to build energy storage facilities and improve their capability to shift peak loads, according to a notice co-released by the National



WASHINGTON, D.C. ??? As part of the Biden-Harris Administration's Investing in America agenda, the U.S. Department of Energy (DOE) today announced over \$3 billion for 25 selected projects across 14 states to boost the domestic production of advanced batteries and battery materials nationwide. The portfolio of selected projects, once fully contracted, are ???

# BUILD A 10 BILLION ENERGY STORAGE INDUSTRY CHAIN



WASHINGTON, D.C. ??? The U.S. Department of Energy (DOE) today announced more than \$131 million for projects to advance research and development (R& D) in electric vehicle (EV) batteries and charging systems, and funding for a consortium to address critical priorities for the next phase of widescale EV commercialization.



The total investment is 69.2 billion yuan! The whole industry chain project of super-large lithium ion energy storage is coming! March 18 is a day worth remembering in the history of attracting investment in Yinchuan. On this day, the whole industrial chain project of energy storage of the largest single plant in China and the largest industrial project of investment in the history of ???



All of this has created a significant opportunity. More than \$5 billion was invested in BESS in 2022, according to our analysis???almost a threefold increase from the previous year. We expect the global BESS market to reach between \$120 billion and \$150 billion by 2030, more than double its size today.



Orsted's renewable projects are expanding America's clean energy supply chain, improving infrastructure, investing locally, and boosting energy security to solar farms and battery storage systems, Orsted is working to build out America's clean energy supply chain. (Orsted). In 2023, the group's revenue was DKK 79.3 billion (EUR



It has now been just over a year since the US Congress signed into law the Inflation Reduction Act (IRA). Already, the IRA has been followed by more than US \$110 billion in clean energy investments, with just over \$70 billion earmarked for the US battery supply chain, particularly downstream cell projects (so-called gigafactories). The first part of this series ???



# BUILD A 10 BILLION ENERGY STORAGE INDUSTRY CHAIN



China's energy storage industry on fast track thanks to policy stimulus; China's installed capacity of storage batteries surges in July; State companies ramp up efforts in hydrogen power for green



China has invested over USD 50 billion in new PV supply capacity ??? ten times more than Europe ??? and created more than 300 000 manufacturing jobs across the solar PV value chain since 2011. Today, China's share in all the manufacturing stages of solar panels (such as polysilicon, ingots, wafers, cells and modules) exceeds 80%.