

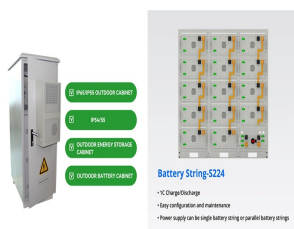
# ENERGY STORAGE MATERIALS FINANCING



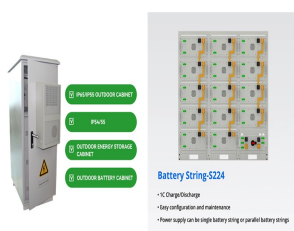
Why do energy storage projects need project financing? The rapid growth in the energy storage market is similarly driving demand for project financing. The general principles of project finance that apply to the financing of solar and wind projects also apply to energy storage projects.



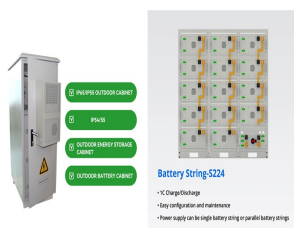
Can you finance a solar energy storage project? Since the majority of solar projects currently under construction include a storage system, lenders in the project finance markets are willing to finance the construction and cashflows of an energy storage project. However, there are certain additional considerations in structuring a project finance transaction for an energy storage project.



Are energy storage projects a project finance transaction? In many ways, energy storage projects are no different than a typical project finance transaction. Project finance is an exercise in risk allocation. Financings will not close until all risks have been catalogued and covered. However, there are some unique features to energy storage with which investors and lenders will have to become familiar.



Are energy storage projects a good investment? Investors and lenders are eager to enter into the energy storage market. In many ways, energy storage projects are no different than a typical project finance transaction. Project finance is an exercise in risk allocation. Financings will not close until all risks have been catalogued and covered.

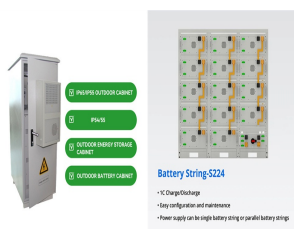


How do energy storage projects make money? Energy storage projects provide a number of services and, for each service, receive a different revenue stream. Distributed energy storage projects offer two main sources of revenue. Capacity payments from the local utility are one.

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Do project finance lenders consider technology risks in energy storage projects? Project finance lenders view all of these newer technologies as having increased risk due to a lack of historical data. As a result, a primary focus for lenders in their due diligence of an energy storage project will be on technology risks.



Other recent Plus Power projects reported by Energy-Storage.news include the 90MW/360MWh Superstition BESS in Arizona for which the developer secured US\$82 million tax equity financing from Morgan Stanley a couple of months ago, and Hawaii's biggest standalone BESS project to date, the 185MW/565MWh Kapolei Energy Storage (KES) project which



MITEI's three-year Future of Energy Storage study explored the role that energy storage can play in fighting climate change and in the global adoption of clean energy grids. Replacing fossil fuel-based power generation with power generation from wind and solar resources is a key strategy for decarbonizing electricity. Storage enables electricity systems to remain in ??? Read more



Energy Storage Finance & Investment brings together the entire storage community, including leading developers, tax equity investors, lenders, capital and debt providers, tax advisors, market analysts, offtakers, and more, to provide a deep dive into today's cutting-edge approaches for finance and investment across the full range of markets and business strategies in this ???



select article Rational design of a heterogeneous double-layered composite solid electrolyte via synergistic strategies of asymmetric polymer matrices and functional additives to enable 4.5 V all-solid-state lithium batteries with superior performance

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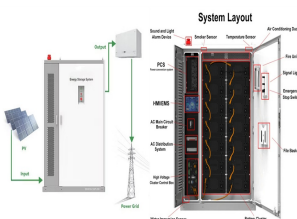
esVolta, a pure-play developer, owner and operator of utility-scale energy storage projects, also announced its financing on Tuesday this week. The company has closed senior secured credit facilities worth US\$258 million for a portfolio of standalone BESS projects in Texas, totalling 980MWh of capacity.



Crimson Energy Storage, the largest battery system to have been commissioned in 2022 at 1,400MWh. Image: Recurrent Energy. A roundup of the biggest projects, financing and offtake deals in the sector that Energy-Storage.news has reported on this year.. It's been another landmark year for energy storage, part exemplified by the following news stories ???



Houston, Texas, July 17, 2024 ??? Intersect Power, LLC, ("Intersect Power" or "Intersect"), announced today the closing of two separate transactions representing an aggregate of \$837 million of financing commitments for the construction and operation of three standalone Battery Energy Storage Systems (BESS) in Texas.

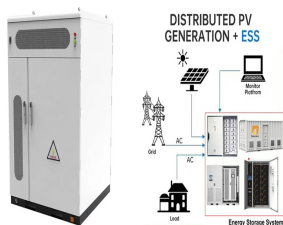


At first glance, renewable power generation has created, in the eyes of traditional industries, an investment nirvana. By understanding how these better-capitalised companies view renewables" merchant risk, we can identify where future energy storage projects should seek finance partners, says Charles Lesser, a partner at Apricum - The Cleantech ???

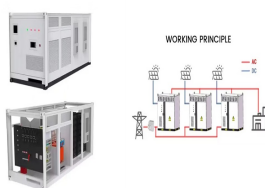


Aspen Aerogels is developing thermal barrier aerogels to tackle thermal runaway in lithium-ion batteries. Image: ESRG. Aspen Aerogels has raised US\$150 million in financing from a Koch family investment firm to help grow its aerogel thermal barrier technology division, including new products which prevent thermal runaway in batteries.

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The Energy Storage Report is now available to download. In it, you'll find the best of our content from Energy-Storage.news Premium and PV Tech Power, as well as new articles covering deployments, technology, policy and finance in the energy storage market.. Energy storage continues to go from strength to strength as a sector, with the buildout in ???



Energy-Storage.news" publisher Solar Media will host the 5th Energy Storage Summit USA, 28-29 March 2023 in Austin, Texas. Featuring a packed programme of panels, presentations and fireside chats from industry leaders focusing on accelerating the market for energy storage across the country. For more information, go to the website.



The Top 5 Energy Storage VC funding deals in 2023 were: Zenobe, which raised \$1.1 billion; Redwood Materials, which raised \$1 billion; SK On, which brought in \$944 million; Vekor, which raised



ESMAP has created and hosts the Energy Storage Partnership (ESP), which aims to finance 17.5-gigawatt hours (GWh) of battery storage by 2025 ??? more than triple the 4.5 GWh currently installed in all developing countries. So far, the program has mobilized \$725 million in concessional funding and will provide 4.7 GWh of battery storage (active



Rendering of how the 185 MW / 565 MWh Kapolei Energy Storage project will look. Image: Plus Power. US\$219 million of financing has been secured by developer Plus Power for the 185MW / 565MWh Kapolei Energy Storage (KES) project in O'ahu, Hawaii.



Energy storage and conversion are vital for addressing global energy challenges, particularly the demand for clean and sustainable energy. Functional organic materials are gaining interest as efficient candidates for these systems due to their abundant resources, tunability, low cost, and

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environmental friendliness. This review is conducted to address the limitations and challenges ???

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select article Corrigendum to "Multifunctional Ni-doped CoSe<sub>2</sub> nanoparticles decorated bilayer carbon structures for polysulfide conversion and dendrite-free lithium toward high-performance Li-S full cell" [Energy Storage Materials Volume 62 (2023) 102925]



Venture capital funding in energy storage reached new heights in 2023, according to Mercom Capital, which reported that U.S. firms invested \$9.2 billion in energy storage ventures throughout the year. This represents a 59% year-over-year increase. In 2023, 86 deals led to \$9.2 billion, up from 2022 totals of 96 deals and \$5.8 billion raised.



EnerVenue builds simple, safe, maintenance-free energy storage for the clean energy revolution ??? based on technology proven over decades in extreme conditions, now scaled for large renewable energy integration applications. Previously, Jorg led strategy, sales and operations for Primus Power, a disruptive long-duration energy storage provider.



minerals, including energy storage equipment and underlying materials and minerals. Over the last year and a half, the US Internal Revenue Service (IRS) and Department of the An increase in demand for energy storage project financing has coincided with the energy storage market's rapid growth. Lenders will analyze both the amount and



Jupiter Power was an early mover in the ERCOT market and has nearly 500MW in operation in the state. Image: Jupiter Power.

Developer-operators Jupiter Power and On.Energy have secured a combined c \$100 million in project financing for standalone battery energy storage system (BESS) projects in the ERCOT, Texas market.



U.S. Market . 35 GW ??? New energy storage additions expected by 2025 (link) ; \$4B --Cumulative operational grid savings by 2025 (link); 167,000 ??? New jobs by 2025 (link); \$3.1B ??? Revenue expected in 2022, up from \$440M in 2017 (link); 21 ??? States with 20+ MW of energy storage

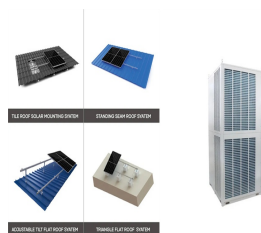
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projects proposed, in construction or deployed (link) ; 10 ??? States with  
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MITEI's three-year Future of Energy Storage study explored the role that energy storage can play in fighting climate change and in the global adoption of clean energy grids. Replacing fossil ???



Reaching out to potential program partners and stakeholders can help you refine your financing strategy objectives. Stakeholders can include municipal governments, residential energy efficiency program sponsors, contractors and trade allies, lenders and potential investors, electric and gas utilities, universities, community action groups, and other non-governmental ???



Our world has a storage problem. As the technology for generating renewable energy has advanced at breakneck pace ??? almost tripling globally between 2011 and 2022 ??? one thing has become clear: our ability to tap into renewable power has outstripped our ability to store it.. Storage is indispensable to the green energy revolution.



Zenob?? Energy, an infrastructure investor and developer in battery energy storage system (BESS) and electric fleet mobility assets based in England, UK, remained at the top of the list, having raised a total of US\$1.084 billion through financing from its main existing investor, Infracapital, and US\$750 million from new investor, US private



Long-duration energy storage tech players Redflow, Rondo, ESS Inc and e-Zinc in finance, project partnership deals. By Andy Colthorpe. Rondo claims the materials used in its storage technology's design???oxygen, silicon, and aluminium???are abundant. Rondo announced last week (26 June) that the new funding will come from the Bill Gates