

# ENERGY STORAGE BANK FINANCING

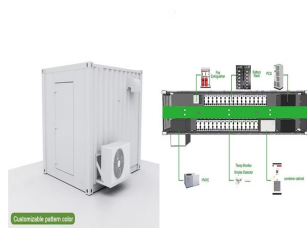


Which energy storage project has the largest financing package?

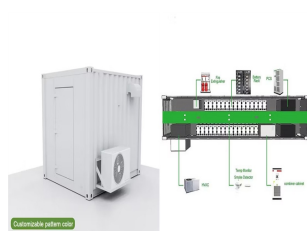
Construction underway at the Sierra Estrella Energy Storage project in Avondale, Arizona, which just received the largest financing package for a single standalone energy storage project, worth \$707 million. (Image: Plus Power) Plus Power LLC announced completion of \$1.8 billion in new financing for standalone battery storage.



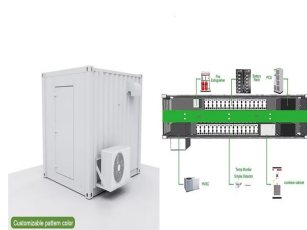
Why is energy storage financing so important? The Energy Storage program's concessional financing has been crucial in securing a total of \$276 million through the Climate Investment Fund, the Green Climate Fund, and similar facilities to co-finance projects in Bangladesh, Burkina Faso, Cabo Verde, Central African Republic, Democratic Republic of the Congo, Maldives, Ukraine, and Zanzibar.



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.



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.

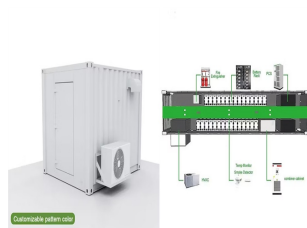


Can you finance a solar energy storage project? Since the majority of solar projects currently under construction include a storage system, lenders in the project finance markets are willing to finance the construction and cashflows of an energy storage project. However, there are certain additional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

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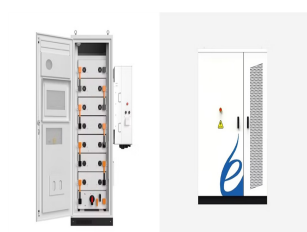
Are energy storage projects a good investment? Investors and lenders are eager to enter into the energy storage market. In many ways, energy storage projects are no different than a typical project finance transaction. Project finance is an exercise in risk allocation. Financings will not close until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



NEW YORK, September 04, 2024--Deutsche Bank and First Citizens Bank announced today they served as co-lead arrangers on a \$315.7 million financing for four battery energy storage systems in Texas.



Apex Clean Energy today announced that First Citizens Bank Energy Finance business served as sole bookrunner and co-lead arranger on financings totaling more than \$150 million for two battery energy storage projects in Texas.

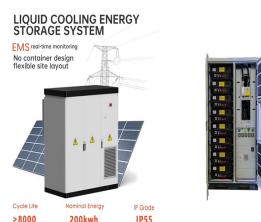


Jupiter Power was an early mover in the ERCOT market and has nearly 500MW in operation in the state. Image: Jupiter Power.

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.



NW has announced that it has secured ???430 million in non-recourse bank financing from international banks Santander CIB and Rabobank. This amount will enable the Group to operate more than 2 GWh of storage capacity in France and Finland by the end of 2025. Complementing the equity financing of ???



US solar PV and energy storage project developer Intersect Power has closed two financing deals worth US\$837 million for three battery energy storage system (BESS) projects in Texas. The trio of projects are 2-hour duration systems, each of 320MWh storage capacity (160MW power

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output), scheduled to go into commercial operation during this year.

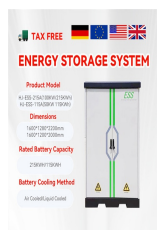
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A US\$57.67 million loan towards the development cost of large-scale battery energy storage system (BESS) projects will be made to South Africa's public electricity utility Eskom by the African Development Bank. The African Development Bank financing will be a concessional loan coming from a US\$5.4 billion multi-donor trust fund called the



The World Bank Group has approved plans to develop Botswana's first utility-scale battery energy storage system (BESS) with 50MW output and 200MWh storage capacity. The World Bank will support the 4-hour duration BESS via a loan of US\$88 million.



The West African Development Bank (BOAD) has approved a US\$24 million loan for a solar and storage project in Senegal with a 15MW/45MWh battery energy storage system (BESS). The loan totalling 15 billion West African Francs (US\$24 million) was approved last month (20 September) by the board of the BOAD ( Banque Ouest-Africaine de ???

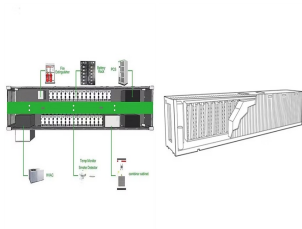


The European Investment Bank Group signed a record amount in new financing for renewables, efficiency, storage and grids in 2022, highlighting the EU bank's unwavering commitment to ensure access to affordable energy at a time of extreme uncertainty. Total EIB financing signed for sustainable energy projects inside the European Union reached an ???

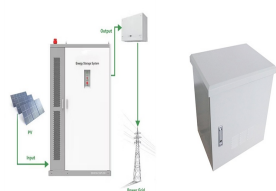


The projects, all supporting the ERCOT grid in Texas, consist of: Rodeo Ranch Battery Storage, a 300MW / 600MWh facility located in Reeves County, which received \$276 million in construction and term financing.; Ebony Energy Storage, a 200 MW / 400 MWh facility located in Comal County, northeast of San Antonio, which received \$196 million in ???

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A roundup of the biggest projects, financing and offtake deals in the energy storage sector that we have reported on this year. It's been a positive year for energy storage in 2023, with new markets opening up and supply chain bottlenecks and price spikes for battery energy storage systems (BESS) easing, though challenges remain.



Energy Storage is critical for integrating renewable energy, reducing peak load, and increasing grid resiliency. To help achieve New York's goal to deploy 1,500 megawatts of energy storage by 2025, NY Green Bank has committed at least \$200 million for storage-related investments to help drive down costs and provide energy storage capabilities



Meanwhile, although NY Green Bank has provided financing for more than US\$2 billion of projects to date, mobilising US\$5.5 billion of private investment in the process, and has funded solar and solar-plus-storage projects, the transaction with NineDot marks its first pureplay energy storage investment. NY Green Bank and NYSEERDA are also tasked



It is the frontier that must be crossed to reach net zero and universal access to clean energy by 2030." - World Bank. Why securing project finance for energy storage projects is challenging. It has traditionally been difficult to secure project finance for energy storage for two key reasons. Firstly, the nascent nature of energy storage



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

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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.



Energy storage is fundamental to stockpile renewable energy on a massive scale. The Energy Storage Program, a window of the World Bank's Energy Sector Management Assistance Program's (ESMAP) has been working to scale up sustainable energy storage investments and generate global knowledge on storage solutions.



Energy storage projects with contracted cashflows can employ several different revenue structures, including (1) offtake agreements for standalone storage projects, which typically provide either capacity-only payments or payments for capacity plus variable O& M ???

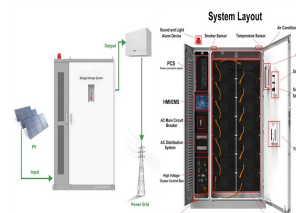


Akaysha Energy has today announced the closing of a A\$650m debt raise with a group of eleven domestic and foreign banks. The financing will provide construction funding for Akaysha's Orana Battery Energy Storage System (BESS) project, which is one of the largest four-hour batteries globally and will add more than 1,660MWh of storage capacity to the National Electricity ???



The projects that Triodos Bank financed covered a broad range of clean energy generation and infrastructure projects, including traditional renewables such as onshore wind, solar, and hydro, as well as battery storage, low ???





Today, the U.S. Department of Energy's (DOE) Loan Programs Office (LPO) announced a conditional commitment for an up to \$72.8 million partial loan guarantee to finance the development of a solar-plus long-duration energy storage microgrid on the Tribal lands of the Viejas

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Band of the Kumeyaay Indians near Alpine, California. This project is the first to be ???