

# ENERGY STORAGE INDUSTRY INCOME RIGHTS FINANCING



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.



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.



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.



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.

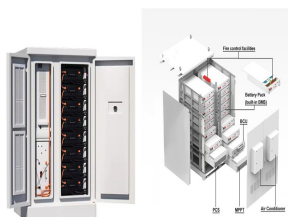
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How do energy storage projects make money? Energy storage projects provide a number of services and, for each service, receive a different revenue stream. Distributed energy storage projects offer two main sources of revenue. Capacity payments from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



A review of energy storage financing??? Learning from and partnering with the renewable energy industry HB 2291, would extend the Renewable Energy Technologies Income Tax Credit (RETITC) to include energy The energy storage industry is in an advantageous position as there is much to be learned from the history of the renewables ???



REGlobal features analysis of key trends and major developments, interviews with top managers and officials, opinion of leading experts and a rich knowledge centre. It covers a wide range of issues and topics including but not limited to markets, technology, policy and finance. The primary focus is on all forms of renewable energy but, when relevant, it also ???



The ITC is taken in the year that the storage project is placed in service for federal income tax purposes but remains subject to "recapture" if the eligible property is disposed of or otherwise ceases to be investment credit property with respect to the taxpayer during the five-year period after the battery storage system is placed in



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

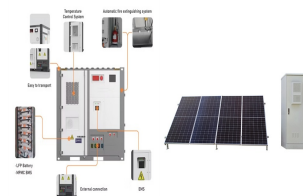
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Energy usage is an integral part of daily life and is pivotal across different sectors, including commercial, transportation, and residential users, with the latter consuming 40% of the energy produced globally (Dawson, 2015). However, with the ongoing penetration of electric vehicles into the market (Hardman et al., 2017), the transportation sector's energy ???



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 ???



TEC has enlisted battery storage and virtual power plant (VPP) specialist Swell Energy to provide systems, together with GRID Alternatives, a solar installation and solar workforce skills charity. On the financing side, ???



Canada still needs much more storage for net zero to succeed. Energy Storage Canada's 2022 report, Energy Storage: A Key Net Zero Pathway in Canada indicates Canada will need a minimum of 8 to 12GW of energy storage to ensure Canada achieves its 2035 goals. Moreover, while each province's supply structure differs, potential capacity for energy storage ???



Energy Storage Financing: Performance Impacts on Project Financing . Richard Baxter . Mustang Prairie Energy . or represent that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, The energy storage industry is similarly laying the

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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 ???



Now let's look at the financing issues and the project risks associated with energy storage today. Revenues. 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.



available for the first time for stand-alone energy storage systems. There are great opportunities in the energy storage sector today, but there are challenges facing the industry as well. Some of the key trends present in the energy storage sector today include increased construction costs, structuring debt financing transactions for energy



energy storage; and facilitate a multiple-use application framework that allows customers to capture multiple value streams. In the interim, various policy initiatives can help spur the energy storage industry in order to realize the immediate benefits storage provides, even as markets and regulations are updated to better capture its true value.



In reviewing 2021, LCP's 2022 UK BESS Whitepaper uncovered a single over-arching theme: the start of the battery storage industry's transition from solving power to solving energy. The long-held promise of utility-scale batteries was ???

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The Global Energy Storage Program (GESp) is the world's largest fund dedicated to supporting renewable energy storage at scale in developing countries. By providing low-cost funding for breakthrough storage solutions, we help bring clean electricity to millions of ???



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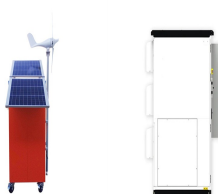


Plus Power has secured \$212.2m tax equity financing from Foss & Company and \$276m of construction and term financing for the 300MW/600MWh Rodeo Ranch Energy Storage facility. It has raised \$196m in construction and term financing for the 200MW/400MWh Ebony Energy Storage facility in Comal County, northeast of San Antonio.



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 ???

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An On.Energy system integration project for an international airport, one of several the company has worked on to date in Latin America. Image: On.Energy. Developers Agilitas Energy and On.Energy have raised a total US\$125 million in debt financing towards solar, energy storage and hybrid solar-plus-storage projects in the US.



It has traditionally been difficult to secure project finance for energy storage for two key reasons. Firstly, the nascent nature of energy storage technology means that fixed income lenders and senior debt providers are naturally risk averse. Battery storage has less of a track record than other renewable energy assets such as solar and wind



The asset manager optimizes dispatch. Lenders will insist on an asset manager with a good track record, although this is difficult in the short term given the nascent nature of the industry. (For more analysis of risks, see "Financing Energy Storage Projects: Assessing Risks" in the June 2017 NewsWire.) Financing



The US energy storage industry enjoyed another quarter of record growth in Q2 2023, with 1,680MW/5,597MWh of new installations tracked by Wood Mackenzie. The research and analysis group has just published the newest, Q3 2023 edition of its US Energy Storage Monitor report in partnership with the American Clean Power Association (ACP) trade group.



However, ever since the landmark deal that saw Oregon-based Powin Energy secure non-recourse construction financing for an 8.8MW/40.8MWh battery storage facility in Stratford, Ontario, non-recourse financing has become increasingly suited to capital-intensive energy storage projects that deliver regular income over long periods of time.



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At any scale, financing storage assets will require getting comfortable with technology risk. Mitigants include creditworthy suppliers standing behind extended contractual warranties; in the USA a two- to three-year warranty is considered standard, but developers can pay for a 10-year warranty, which is considered an extended warranty.



The expansion of Moss Landing Energy Storage Facility in California, already the world's biggest BESS project, to more than 3GWh was one of the highlights of the first half of this year for the US energy storage industry. Image: Vistra Energy. A roundup of the biggest projects, financing and offtake deals in the energy storage sector that we



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