

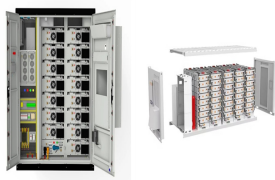
# HOW TO MAKE MONEY IN ENERGY STORAGE PROJECTS



How does energy storage generate revenue? In a word, revenue. Energy storage can collect revenue in America's organized power markets three ways: platforms, products, and pay-days. However, different projects will tap these potential revenue streams in different ways, and investors should seek nimble developers who can navigate a complex and evolving regulatory and market landscape.



Can energy storage make money? Energy storage can make money right now. Finding the opportunities requires digging into real-world data. Energy storage is a favorite technology of the future for good reasons. What is energy storage? Energy storage absorbs and then releases power so it can be generated at one time and used at another.



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.



How does energy storage work? Energy storage can be used to lower peak consumption (the highest amount of power a customer draws from the grid), thus reducing the amount customers pay for demand charges. Our model calculates that in North America, the break-even point for most customers paying a demand charge is about \$9 per kilowatt.

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Why do companies invest in energy-storage devices?

Historically, companies, grid operators, independent power providers, and utilities have invested in energy-storage devices to provide a specific benefit, either for themselves or for the grid. As storage costs fall, ownership will broaden and many new business models will emerge.



The United States and global energy storage markets have experienced rapid growth that is expected to continue. An estimated 387 gigawatts (GW) (or 1,143 gigawatt hours (GWh)) of new energy storage capacity is expected to be added globally from 2022 to 2030, which would result in the size of global energy storage capacity increasing by 15 times ???



The four long-duration energy storage (LDES) demonstration projects will help to achieve the UK's plan for net zero by balancing the intermittency of renewable energy, creating more options for sustainable, low-cost energy storage in the UK. The funding is part of a £68 million first-of-its-kind programme to increase the options for long



More than USD 1 billion will be invested into BTM battery energy storage projects through 2025, overcoming short-term challenges caused by supplier consolidation and the economic impact of the COVID-19 pandemic on businesses. For many commercial and industrial end-customers, managing their peak demand can create a very strong

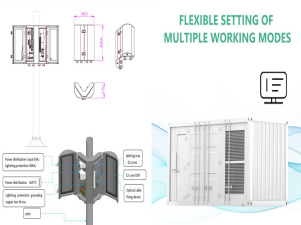


The use of battery energy storage in power systems is increasing. But while approximately 192GW of solar and 75GW of wind were installed globally in 2022, only 16GW/35GWh (gigawatt hours) of new storage systems were deployed. To meet our Net Zero ambitions of 2050, annual additions of grid-scale battery energy storage globally must rise to ???

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Today, the U.S. Department of Energy's (DOE) Office of Clean Energy Demonstrations (OCED) issued a Notice of Intent (NOI) for up to \$100 million to fund pilot-scale energy storage demonstration projects, focusing on non-lithium technologies, long-duration (10+ hour discharge) systems, and stationary storage applications. This funding???made possible by ???



The Department of Energy (DOE) Loan Programs Office (LPO) is working to support U.S. clean hydrogen deployment to facilitate the energy transition in difficult-to-decarbonize sectors to achieve a net-zero economy. Accelerated by Hydrogen Hub funding, multiple tax credits under the Inflation Reduction Act including the hydrogen production tax credit (PTC), DOE's Hydrogen ???



Energy Storage Canada 2, a non-profit organization that promotes energy storage, reports that energy storage projects are operating in each of Ontario, Alberta, Saskatchewan, and PEI, with additional projects under development in these provinces as well as in New Brunswick and Nova Scotia 3. The leading market developments, however, have been



Delivered by Invinity Energy Systems plc (AIM:IES), a leading global manufacturer of utility-grade energy storage, in partnership with Pivot Power, has been awarded over ?700,000 funding for a feasibility study into the development of the UK's largest co-located solar and energy storage project as well as the purchase of two Invinity VS3 units.

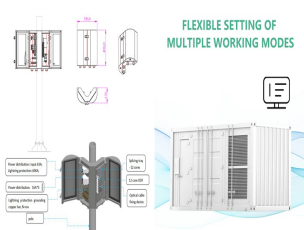


These projects complement the recent agreement for the 250 MW Oneida Energy Storage Facility and conclude the first of two stages within the procurement. Storage facilities charge up during off-peak hours, taking advantage of Ontario's clean energy supply mix, and inject energy back into the grid when it is needed most.

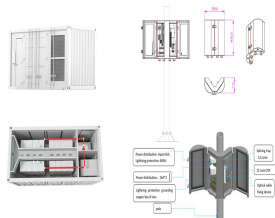
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FIVE STEPS TO ENERGY STORAGE fi INNOVATION INSIGHTS BRIEF  
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 full potential value provided by energy storage 16 Step 4: Assess and  
 adopt ???



"The report focuses on a persistent problem facing renewable energy: how to store it. Storing fossil fuels like coal or oil until it's time to use them isn't a problem, but storage systems for solar and wind energy are still being developed that would let them be used long after the sun stops shining or the wind stops blowing," says Asher Klein for NBC10 Boston on MITEI's "Future of ???



On December 14, 2021, The Climate Investment Funds (CIF), through its Global Energy Storage Program (GESp), hosted a virtual workshop focused on the transformational potential of energy storage. The third workshop in a series, "Keeping the Power On: Financing Energy Storage Solutions" hosted over 150 participants from 39 countries and cities across the world.



2) Hybrid Energy Storage Systems . Hybrid systems combine different types of energy storage technologies to leverage the strengths of each. For example, a combination of lithium-ion batteries for short-duration, high-power needs, and flow batteries for longer-duration, high-energy storage can provide a more versatile and efficient solution.



Many governments around the world have been making progress mobilizing public and private capital to accelerate the energy transition, with significant money inflows into projects in recent years.

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WASHINGTON, D.C. ??? As part of President Biden's Investing in America agenda, a key pillar of Bidenomics, the U.S. Department of Energy (DOE) today announced up to \$325 million for 15 projects across 17 states and one tribal nation to accelerate the development of long-duration energy storage (LDES) technologies. Funded by President Biden's Bipartisan ???



We can't decarbonize the energy grid without the support of energy storage. Grid-scale energy storage projects complement renewables by storing energy and dispatching it during periods of low



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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 projects proposed, in construction or deployed (link) ; 10 ??? States with ???



How to give lenders confidence in BESS project supply chains. The template for successful BESS project financings. How to develop an investor-friendly project management framework. Why ???

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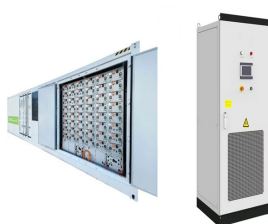
The company has developed storage projects for clients and grid operators throughout North America and recently announced a new storage project in Peru. Install solar + storage on your property Beyond the benefits of installing battery energy storage at the grid scale, there are plenty of reasons to pair one or more batteries with a solar panel



The two parameters which most strongly affect the profitability of energy storage projects are the annual revenue and investment cost. This highlights the importance of identifying ???



Other posts in the Solar + Energy Storage series. Part 1: Want sustained solar growth? Just add energy storage; Part 2: AC vs. DC coupling for solar + energy storage projects; Part 3: Webinar on Demand: Designing PV systems with energy storage; Part 4: Considerations in determining the optimal storage-to-solar ratio



Energy storage projects generate revenue through a variety of complex mechanisms that leverage their ability to store and dispatch power efficiently. 1. Energy arbitrage allows these systems to buy energy at low prices, store it, and sell it when prices rise.



Recently, Peak Power conducted an energy storage finance webinar that focused on strategies available for financing battery storage system projects. The webinar aimed to provide valuable insights into financing options and strategies for these projects. In this article, we will unpack some of the main points covered during the webinar, highlighting key quotes ???



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You can be sure of a peaceful co-existence with a utility scale energy storage project. If you're interested in leasing your land for solar, utility-scale or otherwise, YSG Solar can explain the process and get things set up for you. Just reach out to us today at 212.389.9215 to discuss your options.



Battery energy storage systems can address the challenge of intermittent renewable energy. The quantum of DFI/MDB money involved in such structured transactions is typically much smaller than the amounts committed for conventional soft loans. Independent BESS projects, only supporting renewable energy projects, can be bundled together



From Wood Mackenzie's US Energy Storage Market Report. Storage projects also offer more traditional swap products, such as fixed for variable, along with the full suite of ancillary services. McNair identifies the more common projects as responsive reserve, reg-up/down, non-spinning reserves, and energy products.



Batteries are going to play an increasingly important role in the energy system. An increasing number of developers are keen to add battery storage systems into their existing projects, but future cash flows are highly uncertain and they are often unsure exactly how the battery will be used. A strong revenue model requires stacking of [???