

Reddit energy storage





Overview

What is the future of energy storage?

Storage enables electricity systems to remain in balance despite variations in wind and solar availability, allowing for cost-effective deep decarbonization while maintaining reliability. The Future of Energy Storage report is an essential analysis of this key component in decarbonizing our energy infrastructure and combating climate change.

Why is energy storage important?

Energy storage is a potential substitute for, or complement to, almost every aspect of a power system, including generation, transmission, and demand flexibility. Storage should be co-optimized with clean generation, transmission systems, and strategies to reward consumers for making their electricity use more flexible.

Why do we need a co-optimized energy storage system?

The need to co-optimize storage with other elements of the electricity system, coupled with uncertain climate change impacts on demand and supply, necessitate advances in analytical tools to reliably and efficiently plan, operate, and regulate power systems of the future.

Do energy storage systems reduce electricity costs?

I. Peak Shaving: Energy storage systems play a pivotal role in peak shaving, effectively easing the load during peak hours. They also contribute to creating a smoother load curve, which further reduces electricity costs. II.

What is user-side energy storage?

In essence, user-side energy storage refers to electrochemical energy storage systems used by industrial and commercial customers. These systems can be likened to large-scale power banks that charge when electricity prices are low and discharge when prices are high, thereby reducing overall electricity costs.



Does energy storage capacity cost matter?

In optimizing an energy system where LDES technology functions as “an economically attractive contributor to a lower-cost, carbon-free grid,” says Jenkins, the researchers found that the parameter that matters the most is energy storage capacity cost.



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Energy Storage: Fluence

In my opinion, energy storage is often overlooked when investors are seeking out green energy investment opportunities. Solar and wind energy is... This is not their only project. AES currently has 56 energy storage projects across 15 countries for a total 485 MW of

ELI5: Why is pumped hydro considered non-scalable for energy storage

The amount of water you need to pump for any reasonable grid scale energy storage is massive. For example, a single wind turbine could produce 2 MWh of energy in an hour. To store that energy into water, you need to lift about 150 million 2000 cubic meters of water into a top reservoir that is located 500 almost 400 meters higher than the bottom reservoir.



r/energy on Reddit: Making hydrogen power a reality. Hydrogen ...

The you might estimate that you will be storing energy for half the days of the year and producing energy for half the days of the year. Additionally, the sun only shines for about 8hrs per day of good production... that means that without taking anything else into account, your electrolyser capacity use factor is only 1/6.

Heat energy storage! (more in comments) : r/factorio

I am experimenting with using heat as energy storage. There's much more turbines than what



could be powered by the connected reactors. However those turbines are separated from the main grid by a power switch, so normally the reactors only keep the pipes



[Energy storage module CompactLogix : r/PLC](#)

View community ranking In the Top 5% of largest communities on Reddit Energy storage module CompactLogix In our plant as per Cybersecurity requirement we have to remove SD cards from PLCs. I would like to know if someone faced project image lost due

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Simple Infinite Power Storage using Steam (~5% energy loss)

I really disliked storing energy with large arrays of batteries and figured there must be a better solution. Googling didn't seem to help, so I made a simple way to store electricity using steam. Setup: Aquatuner with super coolant as coolant. It converts power into





[Flywheel based energy storage? : r/SolarDIY](#)

While costs of flywheel energy storage are projected to drop over time, lithium battery storage costs are projected to drop at an even faster rate and remain cheaper. A much more interesting (and seemingly promising) alternative energy storage technology is Redox Flow batteries.



What's the deal with solar/batteries for whole-house backup power?

Save on energy bills: Using a solar backup power system can lower your energy bills. By generating and storing your own electricity, you reduce your demand on the public grid and use your own power when the sun is shining. If you're confused about choosing

Understanding the Basics of Energy Storage Systems ...

Grid-scale energy storage systems are large-scale energy storage systems connected to the grid and used to store excess energy generated by renewable energy sources, such as solar and wind power. It can improve the reliability ...



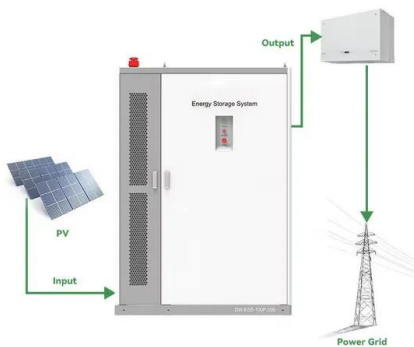
Why aren't alternative energy storage methods talked about as

I've always wondered why more attention isn't paid to alternative methods of energy storage. They depend on topography, most countries don't have much place for it or have already built those systems. Not totally sure about it, but CAES might be problematic



Best energy storage and generation : r/allthemods

I am currently bottlenecked by my energy storage, generation I can easily expand. But the storage is lacking, currently I am using multiple ultimate energy cubes as a storage and I am looking for a better looking and bigger storage solution The biggest one I know is



Energy storage: Are there better ways than batteries?

Hello folks, A big problem in RL energy storage is that batteries are kinda terrible. Batteries are actually pretty decent in ONI, but at the same... Ethanol can be used for energy storage in this way. Lumber -> ethanol -> petroleum doesn't generate that much power

How come more residential solar systems don't have battery

Under NEM-3, the financial goal is to use as little of the grid as possible as you can pay as much as \$1.00/kWh and get paid as little as \$0.00, so storing your own energy is key. In other states where electricity is far cheaper, the math for a battery, even in ...



[Compressed Air Energy Storage : r/energy](#)

You might want to use heat storage, but that's a pretty simple technology in most cases. Of course that does not mean that we won't use energy storage in our electricity grid. But battery storage for peak shaving might be enough for the next 1-2 decades.



[The Energy Storage Report 2024](#)

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. You can read contributed pieces and interviews with leading companies in the sector like Wartsila, ...



ATM6 Best Energy Storage Device? : r/allthemods

Obligatory new to ATM6, What is the best energy storage multiblock in the pack? I want to know what I should be building towards. My group played through FTB Infinity last year and we were using the Draconic Evo Energy Core as our centralized power storage. I

[\[ATM 9\] A good power storage ? : r/allthemods](#)

Hey! I've been playing atm 9 for some time and I haven't noticed any possibility to store a huge amount of energy, so far I'm using Flux Network 6-10 "Gargantuan Storage" but I still have nowhere to add the remaining 3M FE/t. Do you have any power storage

12.8V 200Ah



Economics of Grid-Scale battery storage? : r/energy

A reddit focused on the storage of energy for later use. This includes things like batteries, capacitors, *super*-capacitors, flywheels, air compression, oil compression, mechanical compression, fuel tanks, pumped hydro, thermal storage, electrical storage but



What do you recommend for energy storage? : r/OffGrid

A bit of an odd one is potential energy storage. You can do something like pump water to the top of a hill. When you need electricity you let it flow back down and have it work a turbine. It's a bit more involved than lithium batteries.



[Energy storage solutions : r/MoneroMining](#)

View community ranking In the Top 5% of largest communities on Reddit Energy storage solutions Hi everyone, this is my first post here. I live in an area where electricity is pretty cheap sometimes (ie less than 0.025 USD/kWh). This is only sometimes the



Energy storage important to creating affordable, ...

"The Future of Energy Storage," a new multidisciplinary report from the MIT Energy Initiative (MITEI), urges government investment in sophisticated analytical tools for planning, operation, and regulation of ...



[OC] Most cost-competitive technologies for energy storage : r

Unfortunately, "Storage Duration" is a technical term and it really means "the time it takes for a full capacity energy storage system to completely discharge at rated power". So it is not the time the energy is stored but rather the time it takes for discharge (from



Where are we at with heat pump thermal energy storage? : r

This indicates a significant seasonal energy storage. Some success has been demonstrated by Sweden where approximately 80 % of houses are heated by GSHPs and a successful US business model is Dandelion Energy out of Boston MA. So to answer your



[Energy Storage : r/feedthebeast](#)

Mekanism has a huge energy storage multiblock, too, but if you do make it, DO NOT PLACE IT ACROSS MULTIPLE CHUNKS! You can program a OpenComputers robot to pick up a crystal and chuck it into the buffer once the buffer storage is empty and

FluenceEnergy: energy storage and service provider

I think his channel is great. He mainly focuses on FAANG stocks like AMZN, NVDA, META, GOOG etc. But also Tesla. In his latest video, he is going over Tesla's earnings reports. Several times he points to Tesla's energy storage business and how well it is

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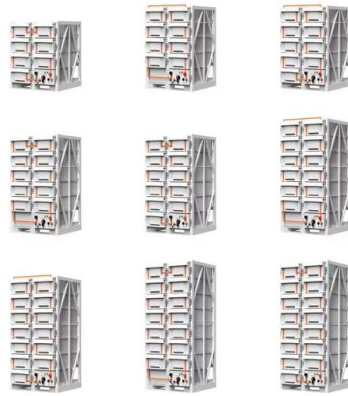
Is battery storage really sustainable? : r/EnergyStorage

I work for a company called KineticCore Solutions that's developing a zero-degradation Kinetic Battery built for minute - 4 hour stationary storage applications. Our kinetic batteries ~\$200 ...



[Energy Storage : r/Oxygennotincluded](#)

If not, I'd advise not to store energy but the fuel, and hook smart batteries up to your generators. Even if not connected to any devices, batteries lose charge over time. Fuel isn't lost as long as you keep it in an isolated location (e.g.



The Future of Energy Storage , MIT Energy Initiative

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 ...

Powering the energy transition with better storage

Exploring different scenarios and variables in the storage design space, researchers find the parameter combinations for innovative, low-cost long-duration energy ...



[Energy Storage in Regrowth : r/feedthebeast](#)

Do you mean actual STORAGE or TRANSPORT? If it's storage, I'd personally recommend Mekanism Energy Cubes. They're fairly cheap to make if you have access to steel. If it's transport, (with access to steel) you can use Mekanism Universal cables. If you



[Thoughts on storage batteries? : r/solar](#)

I don't understand how energy storage would double your power output. It is only used to shift the time when KWh are generated vs used. Here in California on PG& E we figure a 10 cent a kwh savings. For the sake of simple math the battery has 6,000cycles



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