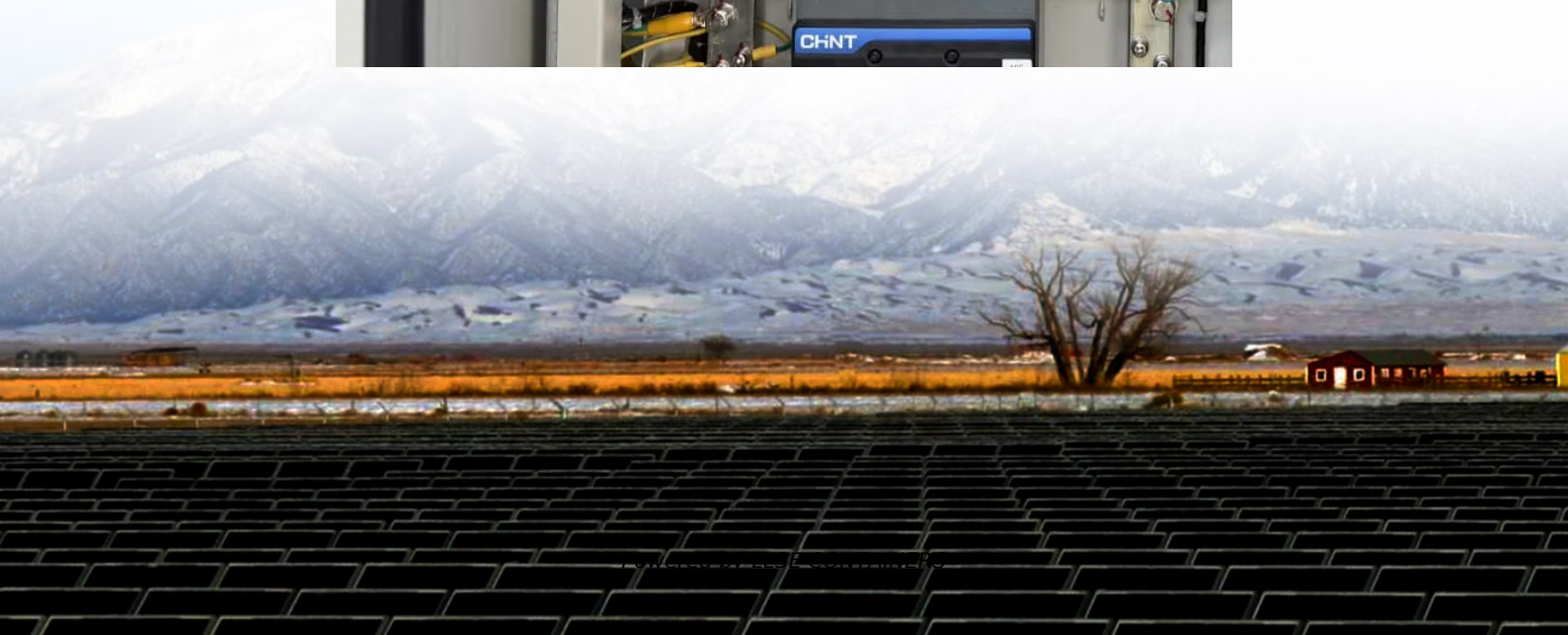


Wind solar and energy storage can smooth out volatility





Overview

Does more solar and wind mean more storage value?

“Our results show that is true, and that all else equal, more solar and wind means greater storage value. That said, as wind and solar get cheaper over time, that can reduce the value storage derives from lowering renewable energy curtailment and avoiding wind and solar capacity investments.

How does hydrogen storage affect solar power volatility?

The power volatility is created by solar power uncertainty and load fluctuations. The results demonstrate that the volatility of dispatched power is successfully buffered by hydrogen storage and the battery effectively shifts energy from hours 1 to 10 to hours 16 to 24.

Should you invest in solar & wind?

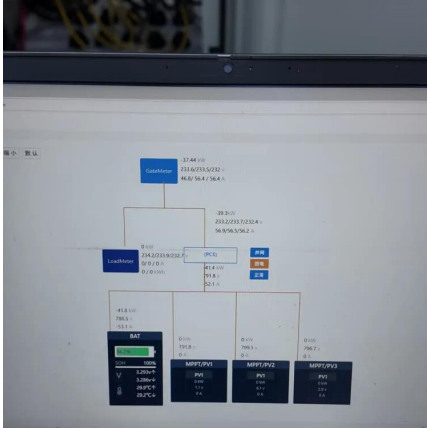
Combining solar and wind assets, for instance, can smooth out production profiles as solar patterns are easier to predict than wind, while wind is not as susceptible to price cannibalisation. Alongside this, investments aimed at increasing flexibility can help reduce waste and protect pricing during periods of high output.

What are the best storage solutions for storing excess power?

Unsurprisingly, storage solutions, such as batteries and hydro pump storage, present the most efficient options for storing excess power – though technological and geographic – as well as costs – constraints limit scalability. A diversified, flexible portfolio can go a long way when it comes to mitigating the impact of price swings.



Wind solar and energy storage can smooth out volatility

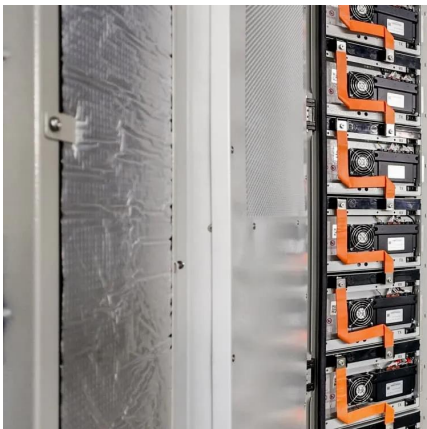


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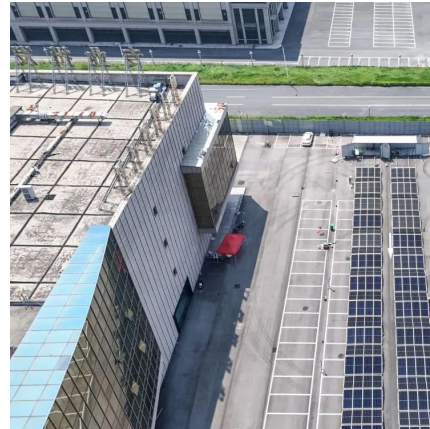


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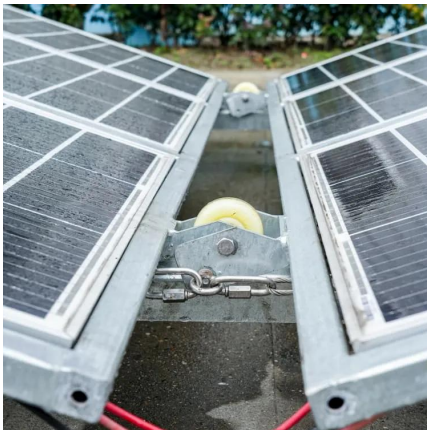
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