



Can energy storage be a strategic investment under competition? These market dynamics serve as a motivation for this study to understand strategic investments in energy storage under competition, taking into account storage impact on the market price. Our work uses energy arbitrage as a test case with the intent to explore additional services in the future.



Is there a realistic investment decision framework for energy storage technology? Therefore, in order to provide a more realistic investment decisions framework for energy storage technology, this study develops a sequential investment decision model based on real options theory, which can consider policy, technological innovation, and market uncertainties.



Do storage investors compete in deregulated electricity markets? In practice, storage investors usually compete in deregulated electricity markets in a non-cooperative manner, a setting that is more challenging to model and analyze. Qin et al. studied strategic storage investment among non-cooperative investors. This work is most closely related to ours. Our work differs from in several crucial ways.



Does market competition affect storage investment? Cournot competition is widely used in electricity markets to study suppliers??? strategic behaviors , , , , , , . However, none of these works studied market competition in storage investment.



What are China's energy storage incentive policies? China's energy storage incentive policies are imperfect, and there are problems such as insufficient local policy implementation and lack of long-term mechanisms . Since the frequency and magnitude of future policy adjustments are not specified, it is impossible for energy storage technology investors to make appropriate investment decisions.





Are investors allowed to deploy different energy storage technologies? Investors are allowed to deploy different energy storage technologies. Analytically,we show that an increasing number of investors will increase the market competition thereby reducing profits while increasing the total capacity of storage deployed.



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The Chinese government attaches great importance to the power battery industry and has formulated a series of related policies. To conduct policy characteristics analysis, we ???



Despite declining costs, energy storage is still expensive, which is why the current capacity participating in electricity markets is still relatively small. In future, as costs continue to ???



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The rapid expansion in intermittent sources of clean energy such as wind and solar power must be matched by investments in energy storage to ensure communities get electricity when they need it most. 11 GESP ???



Italy to launch platform to match available capacity with demand. A new time-shifting trading platform is foreseen as part of the scheme. Storage capacity will be pooled and offered to third parties in the form of standardized ???



Future-proofing battery energy storage system investment Energy losses and advances in battery technology can affect utility-scale storage asset performance over time. Jordan Perrone, senior project development engineer ???





Energy storage has a critical role in stabilising and integrating the renewables power generation, in our view. We expect more favourable policies and pricing mechanisms to support the ???





GE is known for its involvement in various energy storage projects, particularly when it comes to grid-scale battery storage solutions. It continues to be at the forefront of developing and deploying advanced energy storage ???