

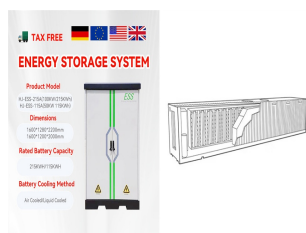
VIRTUAL CENTRALIZED ENERGY STORAGE



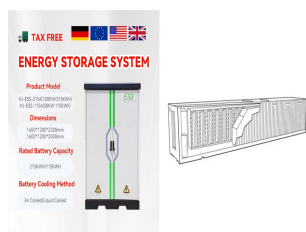
Does storage virtualization reduce energy storage investment? In our simulation results, the proposed storage virtualization model can reduce the physical energy storage investment of the aggregator by 54.3% and reduce the users' total costs by 34.7%, compared to the case where users acquire their own physical storage. References is not available for this document.



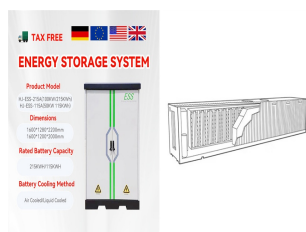
How do aggregators share energy storage? To promote an efficient utilization of energy storage, we develop a novel business model to enable virtual storage sharing among a group of users. Specifically, a storage aggregator invests and operates the central physical storage unit, by virtualizing it into separable virtual capacities and selling to users.



Does energy storage play a role in energy management of end users? Abstract: Energy storage can play an important role in energy management of end users. To promote an efficient utilization of energy storage, we develop a novel business model to enable virtual storage sharing among a group of users.



What is energy storage system leasing (ESS)? Green Mountain Power fully launched the Energy Storage System Leasing (ESS) program in 2020, after two successful pilots, to improve system reliability in the face of extreme weather while reducing costs for all customers. 104 GMP operates the program with Tesla technology.



What is a virtual power plant? The term Virtual Power Plant commonly refers to a category of resources rather than one narrowly defined asset. Even so, the term is interpreted differently across different stakeholders today. IEEE Working Group 2030.14 is developing a guide for VPP functional specification for alternate and multi-source generation.

