

Profit sharing of energy storage project users





Overview

To address the increasing need for clean energy and efficient resource utilization, this paper aims to provide a cooperative framework and a fair profit allocation mechanism for integrated photovoltaic (PV) and energy storage systems that are shared among different types of users within a regional alliance, including industrial, commercial, and residential users. How a shared energy storage system works?

A two-stage model describing the storage sharing among stakeholders is developed. Storage sharing contribution rate is defined to inspire stakeholders to join share. An incentive mechanism is designed based on the asymmetric Nash bargaining model. Shared energy storage system ensures the economic feasibility of all participants.

Is shared energy storage a good choice for Sustainable Communities?

By enhancing the capability for inter-user resource sharing, shared energy storage achieves economic and technical advantages. CESS, in particular, stands out in shared energy storage use scenarios and represents an excellent choice for sustainable communities in the future. Fig. 15. The Sharing Rate of Community Energy Storage Sharing (CESS). (a).

Is shared energy storage a viable business model?

Shared energy storage offers substantial savings on construction costs and improves energy efficiency for users, yet its business model as an independent economic entity remains unclear.

How does community energy storage sharing work?

The operational cost of a community with various controllable loads is optimized to find the optimal storage solution. The sharing rate is proposed to quantify inter-user resource-sharing capability. The Community Energy Storage Sharing scheme outperforms other Energy Sharing paradigms profitably and efficiently.



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