

Large-scale energy storage profitability





Overview

Rapid growth of intermittent renewable power generation makes the identification of investment opportunities in energy storage and the establishment of their profitability indispensable. Here we first present.

Is energy storage a profitable business model?

Although academic analysis finds that business models for energy storage are largely unprofitable, annual deployment of storage capacity is globally on the rise (IEA, 2020). One reason may be generous subsidy support and non-financial drivers like a first-mover advantage (Wood Mackenzie, 2019).

How can energy storage be profitable?

Where a profitable application of energy storage requires saving of costs or deferral of investments, direct mechanisms, such as subsidies and rebates, will be effective. For applications dependent on price arbitrage, the existence and access to variable market prices are essential.

What are business models for energy storage?

Business Models for Energy Storage Rows display market roles, columns reflect types of revenue streams, and boxes specify the business model around an application. Each of the three parameters is useful to systematically differentiate investment opportunities for energy storage in terms of applicable business models.

Are electricity storage technologies a viable investment option?

Although electricity storage technologies could provide useful flexibility to modern power systems with substantial shares of power generation from intermittent renewables, investment opportunities and their profitability have remained ambiguous.



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