

ContainerPower Energy Solutions

The cost of grid-side energy storage



Overview

What is grid-side energy storage?

The grid-side energy storage studied in this paper refers to the energy storage facilities deployed in the transmission and distribution segments of the power system. The position of grid-side energy storage in the power system is shown in Fig. 1.

What are grid investment costs?

Grid investment costs include not only the expenses incurred by connecting new energy to the local transmission or distribution grid but also the costs associated with large-scale renewable energy grid integration, which may necessitate strengthening the grid's transmission and distribution capacity to ensure power quality and stability.

What is the capacity Tariff of grid-side energy storage?

Based on the capacity tariff calculation model of the Stackelberg game proposed in this paper, the capacity tariff of grid-side energy storage is 415.58 CNY/kW.

How does the grid-side energy storage choose to charge and discharge power?

Charge and discharge power and state of charge of the grid-side energy storage. According to Fig. 7, it can be seen that the grid-side energy storage chooses to charge at the time of low and flat electricity prices and discharge at the time of peak electricity prices.

How much power does a grid-side energy storage plant use?

The planned value of the capacity of the energy storage plant was 427.60 kW h, and the maximum value of the charging and discharging power of the energy storage plant was 85.52 kW. Fig. 6. Output of each unit in the system after the integration of grid-side energy storage. Fig. 7.

Does China have a grid-side energy storage system?

In recent years, China has been developing large-scale grid-side energy storage facilities. However, the deployment of grid-side energy storage has primarily depended on government subsidies.

The cost of grid-side energy storage

Contact Us

For catalog requests, pricing, or partnerships, please visit:
<https://www.websparafotografos.es>