

SolarInvert Energy Solutions

New energy storage project peak load regulation





Overview

This project is the first significant scientific and technological innovation demonstration project in China to use molten salt for large-scale heat storage to achieve deep peak regulation for power units. What is a peak load regulation model?

A corresponding peak load regulation model is proposed. On the generation side, studies on peak load regulation mainly focus on new construction, for example, pumped-hydro energy storage stations, gas-fired power units, and energy storage facilities.

How can peak load regulation flexibility be transformed?

The demonstration project for the transformation of peak load regulation flexibility through extracting steam and molten salt heat storage at the Hebei Longshan Power Plant of CHN Energy Investment Group (CHN Energy) started construction recently.

Why do power generation units need peak load regulation?

This allows the units to meet the needs of grid load regulation and make room for new energy power generation. When the power grid is at peak load, the heat stored in the heat storage system during the load regulation can be released to increase the peak load capacity of the power generation units.

What is power system peak load regulation?

The power system peak load regulation is conducted by adjusting the output power and operating states of the power generating units in both peak and offpeak hours.

What is the optimal scheduling model for power system peak load regulation?

Conclusion This paper presented an optimal scheduling model for power system peak load regulation considering the short-time startup and shutdown operations of a thermal power unit. As the main resource on the generation



side, the intrinsic capacity of the thermal units in the system peak load regulation was studied in this paper.

Can peak load regulation cost be integrated into the optimal scheduling model?

To the best of our knowledge, this study is the first to integrate different modes' peak load regulation cost of thermal units into the optimal scheduling model. The proposed method was verified in a real prefecture-level urban power system in southwest China, and its modified test systems.



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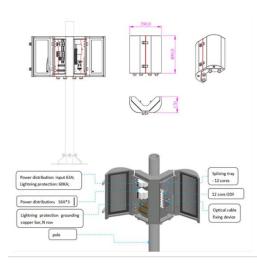
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