

<div class="df_qntext">What is peak load regulation?

To balance the peak-valley (off-peak) difference of the load in the system, the power system peak load regulation is utilized through adjustment of the output power and operating states of power generator units in both peak and off-peak hours.

<div class="df_qntext">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.

<div class="df_qntext">What is peak-regulation capability of a power grid?

Principle of the evaluation method The peak-regulation capability of a power grid refers to the ability of power supply balancing with power load, especially in the peak load and valley load periods. Specifically, the adjustment range of power supply in one day should be high enough to reach the peak load and low enough to reach the valley load.

<div class="df_qntext">Can thermal units be used in peak load regulation?

The proposed method was verified in a real prefecture-level urban power system in southwest China, and its modified test systems. The case studies demonstrated the intrinsic capacity of the thermal units in the system peak load regulation.

<div class="df_qntext">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.

<div class="df_qntext">Can a prefecture-level urban power system regulate peak load?

An integrated optimal scheduling model for power system peak load regulation with a suitable rolling optimization strategy is proposed. A real prefecture-level urban power system in southwest China and its modified test systems are used to test and verify the validity and effectiveness of the proposed methodology.

1. Introduction

Utilizing the power maximization model of short-term peak-load regulation, this paper analyzes the hydro-thermal joint peak-load regulation of power system based on multiple constraints ...

Power system flexibility can be improved effectively, if the advantages of the peak shaving ability of molten

salt solar tower power (STP) plant can be developed and utilized. In this paper, the heat ...

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Abstract The study investigates the heat transport characteristics of the solar power tower station with thermal energy storage, which serves as a peak regulation source in the grid. A 50 ...

In the future power system, the value of baseload will decrease. With higher shares of renewable power, particularly from variable sources such as wind and solar, supply and demand will be matched in a ...

Therefore, a concentrated solar power (CSP) plant equipped with an electric heater (EH) is implemented to join the peak regulation, and the joint peak regulation strategy between ...



Solar container peak load regulation power station

The study investigates the heat transport characteristics of the solar power tower station with thermal energy storage, which serves as a peak regulation source in the grid. A 50 MW power ...

In this study, with different peak load regulation modes, thermal power units are considered for peak load regulation in power systems. An optimal scheduling model integrating the ...

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