

New energy participates in peak load regulation



Overview

New energy storage methods based on electrochemistry can not only participate in peak shaving of the power grid but also provide inertia and emergency power support. Specifically, the adjustment range of power supply in one day should be high enough to reach the per country's installed power generation capacity. Although the willingness of thermal power units to participate in peak regulation auxiliary services is low, the intervention of distributed loads, propelled by the swift advancement of distributed energy sources and the escalating demand for diverse load types encompassing electricity and cooling within virtual power plants (VPPs), has exerted an influence on the symmetry of the grid. Consequently, a control strategy for flexible participation of energy storage systems in power grid peak shaving, in response to the severe problems faced by high penetration areas of new energy, such as wind and solar power curtailment, peak shaving, and rotating backup configuration. This grid's acceptance capacity has become a key factor restricting the development of renewable energy.

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Source-Grid-Load-Storage Participates in the Research on Peak

Abstract: Against the backdrop of the large-scale integration of new energy sources and the connection of a large number of users, the traditional power system architecture is facing new challenges.

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