

RENEWABLE ENERGY GENERATION AND ENERGY STORAGE PEAK LOAD REGULATION SYSTEM



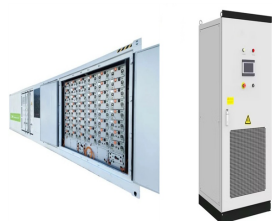
System Topology



To solve the problem of power imbalance caused by the large-scale integration of photovoltaic new energy into the power grid, an improved optimization configuration method ???



The large-scale integration of VRE has recently imposed more complexity into the power system (Brouwer et al., 2014, Pfenninger, 2017). Their inherent variability results in the ???



Due to the fluctuating renewable energy sources represented by wind power, it is essential that new type power systems are equipped with sufficient energy storage devices to ???



Initially, the flexibility in power systems has been defined as the ability of the system generators to react to unexpected changes in load or system components [1]. Recently, it has ???



The proportion of renewable energy in the power system continues to rise, and its intermittent and uncertain output has had a certain impact on the frequency stability of the grid. ???

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As far as existing theoretical studies are concerned, studies on the single application of BESS in grid peak regulation [8] or frequency regulation [9] are relatively mature. ???