

# ENCOURAGE POWER SUPPLY SIDE ENERGY STORAGE TO PARTICIPATE IN PEAK LOAD REGULATION



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.



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.



How effective is peak-load regulation capacity planning? Based on probabilistic production simulation, a novel calculation approach for peak-load regulation capacity was established in Jiang et al. (2017), which is still effective for peak-regulation capacity planning when some information of renewable energy and loads is absent.



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.



How does peak load regulation affect the power system? The peak load regulation problem causes challenges to the power system, and countermeasures are studied on the demand side and the generation side. On the demand side, demand response programs encourage consumers to reduce and/or shift their electricity usage during peak hours

# ENCOURAGE POWER SUPPLY SIDE ENERGY STORAGE TO PARTICIPATE IN PEAK LOAD REGULATION

---



# ENCOURAGE POWER SUPPLY SIDE ENERGY STORAGE TO PARTICIPATE IN PEAK LOAD REGULATION



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.



The energy industry is a key industry in China. The development of clean energy technologies, which prioritize the transformation of traditional power into clean power, is crucial ???

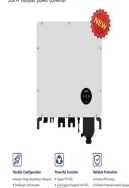


The resources on both sides of source and Dutch have different regulating ability and characteristics with the change of time scale [10] the power supply side, the energy ???



The resources on both sides of source and Dutch have different regulating ability and characteristics with the change of time scale [10]. In the power supply side, the energy ???

SEKY modular power converter

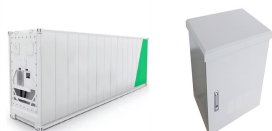


INTEGRATED DESIGN  
EASY TO TRANSPORT AND INSTALL  
FLEXIBLE DEPLOYMENT

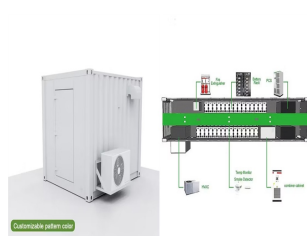


Peak-regulation refers to the planned regulation of generation to follow the load variation pattern either in peak load or valley load periods. Sufficient peak-regulation capability ???

# ENCOURAGE POWER SUPPLY SIDE ENERGY STORAGE TO PARTICIPATE IN PEAK LOAD REGULATION



In this equation,  $P_{load,t|D}$  represents the value of the load at time  $t$  in the intra-day.  $P_{wind,t|D}$  represents the value of the wind power at time  $t$  in the intra-day.  $P_{ESS,k,t}$  represents the regulated power of ???



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. ???



Optimal scheduling for power system peak load regulation considering short-time startup and shutdown operations of thermal power unit. On the generation side, studies on ???