عنوان مقاله:

Stochastic Demand Response Scheduling in Systems With High Penetration of Wind Power

محل انتشار:

سومین کنفرانس انرژی های تجدید پذیر و تولید پراکنده ایران (سال: 1392)

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خلاصه مقاله:

This paper presents a stochastic approach for the hourly scheduling of energy and reserves in systems with high penetration of wind power. In this paper, DR resources areconsidered as demand response providers (DRPs), which have the responsibility of aggregating and managing customerresponses. This paper presents a stochastic model to scheduleoptimal reserves provided by DRPs and its associated cost function in the proposed stochastic model in systems with significant wind power penetration. The proposed model would schedule reserves and energy provided by DRPs and determines commitment states of generating units and their scheduled energy and spinning reserves in the scheduling horizon. A six-bustest system is considered to illustrate the effectiveness of stochastic DR scheduling in wind power integration

کلمات کلیدی:

Demand response; reserve scheduling; wind energy; stochastic programming