

S2-0 Active Power Control System of Large Scale Wind Farms

Wei Li

State Grid Electric Power Research Institute

Tel: +86-25-8309-2451

E-mail: li-wei@sgepri.sgcc.com.cn

Keywords: Wind Generation, Active Power Control, Stability Analysis and Control, Parallel Computation, Fair and Open Dispatching.

Abstract:

Wind power is developing very quickly, especially in China by 2020 there will be eight 10-million-kilowatt wind power bases to be built. But the wind generation is so different with the conventional generations, such as hydrogenation, coal generation, etc. In order to ensure the effective development and efficiency utilization of wind power while getting a friendly integration into power grid, in this presentation, an active power control system is proposed. First, a framework and key techniques of the system are introduced, which consists of the theoretical analysis, typical control configuration and architecture demonstration, then a practical system installed in China is introduced.