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Simulation of System Impact Caused by Wind Generations

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Abstract

First, this paper summarizes the recent installations of wind generators and the rules of system impact with wind generators in the Taiwan area. Then, the simulation methods of system impact including simulation program, the Taipower system, models of wind generators, and the units commitment are introduced. Finally, the simulation results of short-circuit calculation and system transient stability impact caused by a large wind farm with 30 MW capacity in a transmission system and a small wind farm with 3.96 MW capacity in a distribution system are listed to provide the clear understanding and helpful solution for the interested public.